Claims

1. A method for the detection of drink-spoiling microorganisms in a sample, whereby the detection is carried out by using at least one oligonucleotide probe having a nucleic acid sequence selected from the group consisting of (all sequences in 5'→ 3'direction):

SEQ ID No. 1:	5'- GTTTGACCAGATTCTCCGCTC
SEQ ID No. 5:	5'- CCCGGTCGAATTAAAACC
SEQ ID No. 6:	5'- GCCCGGTCGAATTAAAAC
SEQ ID No. 7:	5'- GGCCCGGTCGAATTAAAA
SEQ ID No. 8:	5'- AGGCCCGGTCGAATTAAA
SEQ ID No. 9:	5'- AAGGCCCGGTCGAATTAA
SEQ ID No. 10:	5'- ATATTCGAGCGAAACGCC
SEQ ID No. 11:	5'- AAAGATCCGGACCGGCCG
SEQ ID No. 12	5'- GGAAAGATCCGGACCGGC
SEQ ID No. 13	5'- GAAAGATCCGGACCGGCC
SEQ ID No. 14	5'- GATCCGGACCGGCCGACC
SEQ ID No. 15	5'- AGATCCGGACCGGCCGAC
SEQ ID No. 16	5'- AAGATCCGGACCGGCCGA
SEQ ID No. 17	5'- GAAAGGCCCGGTCGAATT
SEQ ID No. 18	5'- AAAGGCCCGGTCGAATTA
SEQ ID No. 19	5'- GGAAAGGCCCGGTCGAAT
SEQ ID No. 20	5'- AGGAAAGGCCCGGTCGAA
SEQ ID No. 21	5'- AAGGAAAGGCCCGGTCGA
SEQ ID No. 22:	5'- ATAGCACTGGGATCCTCGCC
SEQ ID No. 23:	5'- CCAGCCCCAAAGTTACCTTC
SEQ ID No. 24:	5'- TCCTTGACGTAAAGTCGCAG
SEQ ID No. 25:	5'- GGAAGAAAACCAGTACGC
SEQ ID No. 26:	5'- CCGGTCGGAAGAAAACCA

	SEQ ID No. 27:	5'- GAAGAAAACCAGTACGCG
	SEQ ID No. 28:	5'- CCCGGTCGGAAGAAAACC
	SEQ ID No. 29:	5'- CGGTCGGAAGAAAACCAG
	SEQ ID No. 30:	5'- GGTCGGAAGAAAACCAGT
5	SEQ ID No. 31:	5'- AAGAAAACCAGTACGCGG
	SEQ ID No. 32:	5'- GTACGCGGAAAAATCCGG
	SEQ ID No. 33:	5'- AGTACGCGGAAAAATCCG
	SEQ ID No. 34:	5'- GCGGAAAAATCCGGACCG
	SEQ ID No. 35:	5'- CGGAAGAAAACCAGTACG
10	SEQ ID No. 36:	5'- GCCCGGTCGGAAGAAAAC
	SEQ ID No. 37:	5'- CGCGGAAAAATCCGGACC
	SEQ ID No. 38:	5'- CAGTACGCGGAAAAATCC
	SEQ ID No. 39:	5'- AGAAAACCAGTACGCGGA
	SEQ ID No. 40:	5'- GGCCCGGTCGGAAGAAAA
15	SEQ ID No. 41:	5'- ATAAACACCACCCGATCC
	SEQ ID No. 42:	5'- ACGCGGAAAAATCCGGAC
	SEQ ID No. 43:	5'- GAGAGGCCCGGTCGGAAG
	SEQ ID No. 44:	5'- AGAGGCCCGGTCGGAAGA
	SEQ ID No. 45:	5'- GAGGCCCGGTCGGAAGAA
20	SEQ ID No. 46:	5'- AGGCCCGGTCGGAAGAAA
	SEQ ID No. 47:	5'- CCGAGTGGGTCAGTAAAT
	SEQ ID No. 48:	5'- CCAGTACGCGGAAAAATC
	SEQ ID No. 49:	5'- TAAACACCACCCGATCCC
	SEQ ID No. 50:	5'- GGAGAGGCCCGGTCGGAA
25	SEQ ID No. 51:	5'- GAAAACCAGTACGCGGAA
	SEQ ID No. 52:	5'- TACGCGGAAAAATCCGGA
	SEQ ID No. 53:	5'- GGCCACAGGGACCCAGGG
	SEQ ID No. 54:	5'- TCACCAAGGGCCACAGGG
	SEQ ID No. 55:	5'- GGGCCACAGGGACCCAGG
30	SEQ ID No. 56:	5'- TTCACCAAGGGCCACAGG

SEQ ID No. 57:   5'- ACAGGGACCCAGGGCTAG

SEQ ID No. 58:   5'- AGGGCCACAGGGACCCAG

SEQ ID No. 59:   5'- GTTCACCAAGGGCCACAG

SEQ ID No. 60:   5'- GCCACAGGGACCCAGGGC

5   SEQ ID No. 61:   5'- CAGGGACCCAGGGCTAGC

SEQ ID No. 62:   5'- AGGGACCCAGGGCTAGCC

SEQ ID No. 63:   5'- ACCAAGGGCCACAGGGAC

SEQ ID No. 64:   5'- CCACAGGGACCCAGGGCT

SEQ ID No. 65:   5'- CACAGGGACCCAGGGCTA

10 SEQ ID No. 66:   5'- CACCAAGGGCCACAGGGA

SEQ ID No. 67:   5'- GGGACCCAGGGCTAGCCA

SEQ ID No. 68:   5'- AGGAGAGGCCCGGTCGGA

SEQ ID No. 69:   5'- AAGGAGAGGCCCGGTCGG

SEQ ID No. 70:   5'- GAAGGAGAGGCCCGGTCG

15 SEQ ID No. 71:   5'- AGGGCTAGCCAGAAGGAG

SEQ ID No. 72:   5'- GGGCTAGCCAGAAGGAGA

SEQ ID No. 73:   5'- AGAAGGAGAGGCCCGGTC

SEQ ID No. 74:   5'- CAAGGGCCACAGGGACCC

SEQ ID No. 75:   5'- CCAAGGGCCACAGGGACC

20 SEQ ID No. 76:   5'- GTCGGAAAAACCAGTACG

SEQ ID No. 77:   5'- GCCCGGTCGGAAAAACCA

SEQ ID No. 78:   5'- CCGGTCGGAAAAACCAGT

SEQ ID No. 79:   5'- CCCGGTCGGAAAAACCAG

SEQ ID No. 80:   5'- TCGGAAAAACCAGTACGC

25 SEQ ID No. 81:   5'- CGGAAAAACCAGTACGCG

SEQ ID No. 82:   5'- GGAAAAACCAGTACGCGG

SEQ ID No. 83:   5'- GTACGCGGAAAAATCCGG

SEQ ID No. 84:   5'- AGTACGCGGAAAAATCCG

SEQ ID No. 85:   5'- GCGGAAAAATCCGGACCG

30 SEQ ID No. 86:   5'- GGTCGGAAAAACCAGTAC

SEQ ID No. 87:   5′- ACTCCTAGTGGTGCCCTT

SEQ ID No. 88:   5′- GCTCCACTCCTAGTGGTG

SEQ ID No. 89:   5′- CACTCCTAGTGGTGCCCT

SEQ ID No. 90:   5′- CTCCACTCCTAGTGGTGC

5   SEQ ID No. 91:   5′- TCCACTCCTAGTGGTGCC

SEQ ID No. 92:   5′- CCACTCCTAGTGGTGCCC

SEQ ID No. 93:   5′- GGCTCCACTCCTAGTGGT

SEQ ID No. 94:   5′- AGGCTCCACTCCTAGTGG

SEQ ID No. 95:   5′- GGCCCGGTCGGAAAAACC

10   SEQ ID No. 96:   5′- GAAAACCAGTACGCGGA

SEQ ID No. 97:   5′- CGCGGAAAAATCCGGACC

SEQ ID No. 98:   5′- CAGTACGCGGAAAAATCC

SEQ ID No. 99:   5′- CGGTCGGAAAAACCAGTA

SEQ ID No. 100:   5′- AAGGCCCGGTCGGAAAAA

15   SEQ ID No. 101:   5′- CAGGCTCCACTCCTAGTG

SEQ ID No. 102:   5′- CTCCTAGTGGTGCCCTTC

SEQ ID No. 103:   5′- TCCTAGTGGTGCCCTTCC

SEQ ID No. 104:   5′- GCAGGCTCCACTCCTAGT

SEQ ID No. 105:   5′- AGGCCCGGTCGGAAAAAC

20   SEQ ID No. 106:   5′- ACGCGGAAAAATCCGGAC

SEQ ID No. 107:   5′- CCAGTACGCGGAAAAATC

SEQ ID No. 108:   5′- CTAGTGGTGCCCTTCCGT

SEQ ID No. 109:   5′- GAAAGGCCCGGTCGGAAA

SEQ ID No. 110:   5′- AAAGGCCCGGTCGGAAAA

25   SEQ ID No. 111:   5′- TACGCGGAAAAATCCGGA

SEQ ID No. 112:   5′- GGAAAGGCCCGGTCGGAA

SEQ ID No. 113:   5′- ATCTCTTCCGAAAGGTCG

SEQ ID No. 114:   5′- CATCTCTTCCGAAAGGTC

SEQ ID No. 115:   5′- CTCTTCCGAAAGGTCGAG

30   SEQ ID No. 116:   5′- CTTCCGAAAGGTCGAGAT

SEQ ID No. 117:   5'- TCTCTTCCGAAAGGTCGA

SEQ ID No. 118:   5'- TCTTCCGAAAGGTCGAGA

SEQ ID No. 119:   5'- CCTAGTGGTGCCCTTCCG

SEQ ID No. 120:   5'- TAGTGGTGCCCTTCCGTC

5   SEQ ID No. 121:   5'- AGTGGTGCCCTTCCGTCA

SEQ ID No. 122:   5'- GCCAAGGTTAGACTCGTT

SEQ ID No. 123:   5'- GGCCAAGGTTAGACTCGT

SEQ ID No. 124:   5'- CCAAGGTTAGACTCGTTG

SEQ ID No. 125:   5'- CAAGGTTAGACTCGTTGG

10   SEQ ID No. 126:   5'- AAGGTTAGACTCGTTGGC

SEQ ID No. 127:   5'- CTCGCCTCACGGGGTTCTCA

SEQ ID No. 128:   5'- GGCCCGGTCGAAATTAAA

SEQ ID No. 129:   5'- AGGCCCGGTCGAAATTAA

SEQ ID No. 130:   5'- AAGGCCCGGTCGAAATTA

15   SEQ ID No. 131:   5'- AAAGGCCCGGTCGAAATT

SEQ ID No. 132:   5'- GAAAGGCCCGGTCGAAAT

SEQ ID No. 133:   5'- ATATTCGAGCGAAACGCC

SEQ ID No. 134:   5'- GGAAAGGCCCGGTCGAAA

SEQ ID No. 135:   5'- AAAGATCCGGACCGGCCG

20   SEQ ID No. 136:   5'- GGAAAGATCCGGACCGGC

SEQ ID No. 137:   5'- GAAAGATCCGGACCGGCC

SEQ ID No. 138:   5'- GATCCGGACCGGCCGACC

SEQ ID No. 139:   5'- AGATCCGGACCGGCCGAC

SEQ ID No. 140:   5'- AAGATCCGGACCGGCCGA

25   SEQ ID No. 141:   5'- AGGAAAGGCCCGGTCGAA

SEQ ID No. 142:   5'- AAGGAAAGGCCCGGTCGA

SEQ ID No. 143:   5'-CGAGCAAACGCCTGCTTTG

SEQ ID No. 144:   5'-CGCTCTGAAAGAGAGTTGCC

SEQ ID No. 145:   5'-AGTTGCCCCTACACTAGAC

30   SEQ ID No. 146:   5'-GCTTCTCCGTCCCGCGCCG

SEQ ID No. 148:   5'- CCTGGTTCGCCAAAAAGGC

SEQ ID No. 149:   5'-GATTCTCGGCCCCATGGG

SEQ ID No. 150:   5'- ACCCTCTACGGCAGCCTGTT

SEQ ID No. 151:   5'- GATCGGTCTCCAGCGATTCA

5   SEQ ID No. 152:   5'- ACCCTCCACGGCGGCCTGTT

SEQ ID No. 153:   5'- GATTCTCCGCGCCATGGG

SEQ ID No. 154:   5'- TCATCAGACGGGATTCTCAC

SEQ ID No. 157:   5'-AGTTGCCCCTCCTCTAAGC

SEQ ID No. 158:   5'-CTGCCACAAGGACAAATGGT

10   SEQ ID No. 159:   5'-TGCCCCCTCTTCTAAGCAAAT

SEQ ID No. 160:   5'-CCCCAAAGTTGCCCTCTC

SEQ ID No. 163:   5'-AAGACCAGGCCACCTCAT

SEQ ID No. 164:   5'- CATCATAGAACACCGTCC

SEQ ID No. 165:   5'- CCTTCCGAAGTCGAGGTTTT

15   SEQ ID No. 166:   5'- GGGAGTGTTGCCAACTC

SEQ ID No. 167:   5'- AGCGGTCGTTCGCAACCCT

SEQ ID No. 168:   5'- CCGAAGTCGGGGTTTTGCGG

SEQ ID No. 169:   5'- GATAGCCGAAACCACCTTTC

SEQ ID No. 170:   5'- GCCGAAACCACCTTTCAAAC

20   SEQ ID No. 171:   5'- GTGATAGCCGAAACCACCTT

SEQ ID No. 172:   5'- AGTGATAGCCGAACCACCT

SEQ ID No. 173:   5'- TTTAACGGGATGCGTTCGAC

SEQ ID No. 174:   5'- AAGTGATAGCCGAAACCACC

SEQ ID No. 175:   5'- GGTTGAATACCGTCAACGTC

25   SEQ ID No. 176:   5'- GCACAGTATGTCAAGACCTG

SEQ ID No. 177:   5'- CATCCGATGTGCAAGCACTT

SEQ ID No. 178:   5'- TCATCCGATGTGCAAGCACT

SEQ ID No. 179:   5'- CCGATGTGCAAGCACTTCAT

SEQ ID No. 180:   5'- CCACTCATCCGATGTGCAAG

30   SEQ ID No. 181:   5'- GCCACAGTTCGCCACTCATC

SEQ ID No. 182: 5'- CCTCCGCGTTTGTCACCGGC

SEQ ID No. 183: 5'- ACCAGTTCGCCACAGTTCGC

SEQ ID No. 184: 5'- CACTCATCCGATGTGCAAGC

SEQ ID No. 185: 5'- CCAGTTCGCCACAGTTCGCC

5   SEQ ID No. 186: 5'- CTCATCCGATGTGCAAGCAC

SEQ ID No. 187: 5'- TCCGATGTGCAAGCACTTCA

SEQ ID No. 188: 5'- CGCCACTCATCCGATGTGCA

SEQ ID No. 189: 5'- CAGTTCGCCACAGTTCGCCA

SEQ ID No. 190: 5'- GCCACTCATCCGATGTGCAA

10 SEQ ID No. 191: 5'- CGCCACAGTTCGCCACTCAT

SEQ ID No. 192: 5'- ATCCGATGTGCAAGCACTTC

SEQ ID No. 193: 5'- GTTCGCCACAGTTCGCCACT

SEQ ID No. 194: 5'- TCCTCCGCGTTTGTCACCGG

SEQ ID No. 195: 5'- CGCCAGGGTTCATCCTGAGC

15 SEQ ID No. 196: 5'- AGTTCGCCACAGTTCGCCAC

SEQ ID No. 197: 5'- TCGCCACAGTTCGCCACTCA

SEQ ID No. 198: 5'- TTAACGGGATGCGTTCGACT

SEQ ID No. 199: 5'- TCGCCACTCATCCGATGTGC

SEQ ID No. 200: 5'- CCACAGTTCGCCACTCATCC

20 SEQ ID No. 201: 5'- GATTTAACGGGATGCGTTCG

SEQ ID No. 202: 5'- TAACGGGATGCGTTCGACTT

SEQ ID No. 203: 5'- AACGGGATGCGTTCGACTTG

SEQ ID No. 204: 5'- CGAAGGTTACCGAACCGACT

SEQ ID No. 205: 5'- CCGAAGGTTACCGAACCGAC

25 SEQ ID No. 206: 5'- CCCGAAGGTTACCGAACCGA

SEQ ID No. 207: 5'- TTCCTCCGCGTTTGTCACCG

SEQ ID No. 208: 5'- CCGCCAGGGTTCATCCTGAG

SEQ ID No. 209: 5'- TCCTTCCAGAAGTGATAGCC

SEQ ID No. 210: 5'- CACCAGTTCGCCACAGTTCG

30 SEQ ID No. 211: 5'- ACGGGATGCGTTCGACTTGC

SEQ ID No. 212:   5'- GTCCTTCCAGAAGTGATAGC

SEQ ID No. 213:   5'- GCCAGGGTTCATCCTGAGCC

SEQ ID No. 214:   5'- ACTCATCCGATGTGCAAGCA

SEQ ID No. 215:   5'- ATCATTGCCTTGGTGAACCG

5   SEQ ID No. 216:   5'- TCCGCGTTGTCACCGGCAG

SEQ ID No. 217:   5'- TGAACCGTTACTCCACCAAC

SEQ ID No. 218:   5'- GAAGTGATAGCCGAAACCAC

SEQ ID No. 219:   5'- CCGCGTTGTCACCGGCAGT

SEQ ID No. 220:   5'- TTCGCCACTCATCCGATGTG

10   SEQ ID No. 221:   5'- CATTTAACGGGATGCGTTCG

SEQ ID No. 222:   5'- CACAGTTCGCCACTCATCCG

SEQ ID No. 223:   5'- TTCGCCACAGTTCGCCACTC

SEQ ID No. 224:   5'- CTCCGCGTTGTCACCGGCA

SEQ ID No. 225:   5'- ACGCCGCCAGGGTTCATCCT

15   SEQ ID No. 226:   5'- CCTTCCAGAAGTGATAGCCG

SEQ ID No. 227:   5'- TCATTGCCTTGGTGAACCGT

SEQ ID No. 228:   5'- CACAGTATGTCAAGACCTGG

SEQ ID No. 229:   5'- TTGGTGAACCGTTACTCCAC

SEQ ID No. 230:   5'- CTTGGTGAACCGTTACTCCA

20   SEQ ID No. 231:   5'- GTGAACCGTTACTCCACCAA

SEQ ID No. 232:   5'- GGCTCCCGAAGGTTACCGAA

SEQ ID No. 233:   5'- GAAGGTTACCGAACCGACTT

SEQ ID No. 234:   5'- TGGCTCCCGAAGGTTACCGA

SEQ ID No. 235:   5'- TAATACGCCGCGGGTCCTTC

25   SEQ ID No. 236:   5'- GAACCGTTACTCCACCAACT

SEQ ID No. 237:   5'- TACGCCGCGGGTCCTTCCAG

SEQ ID No. 238:   5'- TCACCAGTTCGCCACAGTTC

SEQ ID No. 239:   5'- CCTTGGTGAACCGTTACTCC

SEQ ID No. 240:   5'- CTCACCAGTTCGCCACAGTT

30   SEQ ID No. 241:   5'- CGCCGCCAGGGTTCATCCTG

SEQ ID No. 242:   5′- CCTTGGTGAACCATTACTCC

SEQ ID No. 243:   5′- TGGTGAACCATTACTCCACC

SEQ ID No. 244:   5′- GCCGCCAGGGTTCATCCTGA

SEQ ID No. 245:   5′- GGTGAACCATTACTCCACCA

5   SEQ ID No. 246:   5′- CCAGGGTTCATCCTGAGCCA

SEQ ID No. 247:   5′- AATACGCCGCGGGTCCTTCC

SEQ ID No. 248:   5′- CACGCCGCCAGGGTTCATCC

SEQ ID No. 249:   5′- AGTTCGCCACTCATCCGATG

SEQ ID No. 250:   5′- CGGGATGCGTTCGACTTGCA

10   SEQ ID No. 251:   5′- CATTGCCTTGGTGAACCGTT

SEQ ID No. 252:   5′- GCACGCCGCCAGGGTTCATC

SEQ ID No. 253:   5′- CTTCCTCCGCGTTTGTCACC

SEQ ID No. 254:   5′- TGGTGAACCGTTACTCCACC

SEQ ID No. 255:   5′- CCTTCCTCCGCGTTTGTCAC

15   SEQ ID No. 256:   5′- ACGCCGCGGGTCCTTCCAGA

SEQ ID No. 257:   5′- GGTGAACCGTTACTCCACCA

SEQ ID No. 258:   5′- GGGTCCTTCCAGAAGTGATA

SEQ ID No. 259:   5′- CTTCCAGAAGTGATAGCCGA

SEQ ID No. 260:   5′- GCCTTGGTGAACCATTACTC

20   SEQ ID No. 261:   5′- ACAGTTCGCCACTCATCCGA

SEQ ID No. 262:   5′- ACCTTCCTCCGCGTTTGTCA

SEQ ID No. 263:   5′- CGAACCGACTTTGGGTGTTG

SEQ ID No. 264:   5′- GAACCGACTTTGGGTGTTGC

SEQ ID No. 265:   5′- AGGTTACCGAACCGACTTTG

25   SEQ ID No. 266:   5′- ACCGAACCGACTTTGGGTGT

SEQ ID No. 267:   5′- TTACCGAACCGACTTTGGGT

SEQ ID No. 268:   5′- TACCGAACCGACTTTGGGTG

SEQ ID No. 269:   5′- GTTACCGAACCGACTTTGGG

SEQ ID No. 270:   5′- CCTTTCTGGTATGGTACCGTC

30   SEQ ID No. 271:   5′- TGCACCGCGGAYCCATCTCT

SEQ ID No. 272:   5′- AGTTGCAGTCCAGTAAGCCG

SEQ ID No. 273:   5′- GTTGCAGTCCAGTAAGCCGC

SEQ ID No. 274:   5′- CAGTTGCAGTCCAGTAAGCC

SEQ ID No. 275:   5′- TGCAGTCCAGTAAGCCGCCT

5   SEQ ID No. 276:   5′- TCAGTTGCAGTCCAGTAAGC

SEQ ID No. 277:   5′- TTGCAGTCCAGTAAGCCGCC

SEQ ID No. 278:   5′- GCAGTCCAGTAAGCCGCCTT

SEQ ID No. 279:   5′- GTCAGTTGCAGTCCAGTAAG

SEQ ID No. 280:   5′- CTCTAGGTGACGCCGAAGCG

10   SEQ ID No. 281:   5′- ATCTCTAGGTGACGCCGAAG

SEQ ID No. 282:   5′- TCTAGGTGACGCCGAAGCGC

SEQ ID No. 283:   5′- TCTCTAGGTGACGCCGAAGC

SEQ ID No. 284:   5′- CCATCTCTAGGTGACGCCGA

SEQ ID No. 285:   5′- CATCTCTAGGTGACGCCGAA

15   SEQ ID No. 286:   5′- TAGGTGACGCCGAAGCGCCT

SEQ ID No. 287:   5′- CTAGGTGACGCCGAAGCGCC

SEQ ID No. 288:   5′- CTTAGACGGCTCCTTCCTAA

SEQ ID No. 289:   5′- CCTTAGACGGCTCCTTCCTA

SEQ ID No. 290:   5′- ACGTCAGTTGCAGTCCAGTA

20   SEQ ID No. 291:   5′- CGTCAGTTGCAGTCCAGTAA

SEQ ID No. 292:   5′- ACGCCGAAGCGCCTTTTAAC

SEQ ID No. 293:   5′- GACGCCGAAGCGCCTTTTAA

SEQ ID No. 294:   5′- GCCGAAGCGCCTTTTAACTT

SEQ ID No. 295:   5′- CGCCGAAGCGCCTTTTAACT

25   SEQ ID No. 296:   5′- GTGACGCCGAAGCGCCTTTT

SEQ ID No. 297:   5′- TGACGCCGAAGCGCCTTTTA

SEQ ID No. 298:   5′- AGACGGCTCCTTCCTAAAAG

SEQ ID No. 299:   5′- ACGGCTCCTTCCTAAAAGGT

SEQ ID No. 300:   5′- GACGGCTCCTTCCTAAAAGG

30   SEQ ID No. 301:   5′- CCTTCCTAAAAGGTTAGGCC

SEQ ID No. 302:   5'- GGTGACGCCAAAGCGCCTTT

SEQ ID No. 303:   5'- AGGTGACGCCAAAGCGCCTT

SEQ ID No. 304:   5'- TAGGTGACGCCAAAGCGCCT

SEQ ID No. 305:   5'- CTCTAGGTGACGCCAAAGCG

5   SEQ ID No. 306:   5'- TCTAGGTGACGCCAAAGCGC

SEQ ID No. 307:   5'- CTAGGTGACGCCAAAGCGCC

SEQ ID No. 308:   5'- ACGCCAAAGCGCCTTTTAAC

SEQ ID No. 309:   5'- CGCCAAAGCGCCTTTTAACT

SEQ ID No. 310:   5'- TGACGCCAAAGCGCCTTTTA

10 SEQ ID No. 311:   5'- TCTCTAGGTGACGCCAAAGC

SEQ ID No. 312:   5'- GTGACGCCAAAGCGCCTTTT

SEQ ID No. 313:   5'- GACGCCAAAGCGCCTTTTAA

SEQ ID No. 314:   5'- ATCTCTAGGTGACGCCAAAG

SEQ ID No. 315:   5'- CATCTCTAGGTGACGCCAAA

15 SEQ ID No. 316:   5'- TCCATCTCTAGGTGACGCCA

SEQ ID No. 317:   5'- CCATCTCTAGGTGACGCCAA

SEQ ID No. 318:   5'- CTGCCTTAGACGGCTCCCCC

SEQ ID No. 319:   5'- CCTGCCTTAGACGGCTCCCC

SEQ ID No. 320:   5'- GTGTCATGCGACACTGAGTT

20 SEQ ID No. 321:   5'- TGTGTCATGCGACACTGAGT

SEQ ID No. 322:   5'- CTTTGTGTCATGCGACACTG

SEQ ID No. 323:   5'- TTGTGTCATGCGACACTGAG

SEQ ID No. 324:   5'- TGCCTTAGACGGCTCCCCCT

SEQ ID No. 325:   5'- AGACGGCTCCCCCTAAAAGG

25 SEQ ID No. 326:   5'- TAGACGGCTCCCCCTAAAAG

SEQ ID No. 327:   5'- GCCTTAGACGGCTCCCCCTA

SEQ ID No. 328:   5'- GCTCCCCCTAAAAGGTTAGG

SEQ ID No. 329:   5'- GGCTCCCCCTAAAAGGTTAG

SEQ ID No. 330:   5'- CTCCCCCTAAAAGGTTAGGC

30 SEQ ID No. 331:   5'- TCCCCCTAAAAGGTTAGGCC

	SEQ ID No. 332:	5'- CCCTAAAAGGTTAGGCCACC
	SEQ ID No. 333:	5'- CCCCTAAAAGGTTAGGCCAC
	SEQ ID No. 334:	5'- CGGCTCCCCCTAAAAGGTTA
	SEQ ID No. 335:	5'- CCCCCTAAAAGGTTAGGCCA
5	SEQ ID No. 336:	5'- CTTAGACGGCTCCCCCTAAA
	SEQ ID No. 337:	5'- TTAGACGGCTCCCCCTAAAA
	SEQ ID No. 338:	5'- GGGTTCGCAACTCGTTGTAT
	SEQ ID No. 339:	5'- CCTTAGACGGCTCCCCCTAA
	SEQ ID No. 340:	5'- ACGGCTCCCCCTAAAAGGTT
10	SEQ ID No. 341:	5'- GACGGCTCCCCCTAAAAGGT
	SEQ ID No. 342:	5'- ACGCCGCAAGACCATCCTCT
	SEQ ID No. 343:	5'- CTAATACGCCGCAAGACCAT
	SEQ ID No. 344:	5'- TACGCCGCAAGACCATCCTC
	SEQ ID No. 345:	5'- GTTACGATCTAGCAAGCCGC
15	SEQ ID No. 346:	5'- AATACGCCGCAAGACCATCC
	SEQ ID No. 347:	5'- CGCCGCAAGACCATCCTCTA
	SEQ ID No. 348:	5'- GCTAATACGCCGCAAGACCA
	SEQ ID No. 349:	5'- ACCATCCTCTAGCGATCCAA
	SEQ ID No. 350:	5'- TAATACGCCGCAAGACCATC
20	SEQ ID No. 351:	5'- AGCCATCCCTTCTGGTAAG
	SEQ ID No. 352:	5'- ATACGCCGCAAGACCATCCT
	SEQ ID No. 353:	5'- AGTTACGATCTAGCAAGCCG
	SEQ ID No. 354:	5'- AGCTAATACGCCGCAAGACC
	SEQ ID No. 355:	5'- GCCGCAAGACCATCCTCTAG
25	SEQ ID No. 356:	5'- TTACGATCTAGCAAGCCGCT
	SEQ ID No. 357:	5'- GACCATCCTCTAGCGATCCA
	SEQ ID No. 358:	5'- TTGCTACGTCACTAGGAGGC
	SEQ ID No. 359:	5'- ACGTCACTAGGAGGCGGAAA
	SEQ ID No. 360:	5'- TTTGCTACGTCACTAGGAGG
30	SEQ ID No. 361:	5'- GCCATCCCTTTCTGGTAAGG

SEQ ID No. 362:   5'- TACGTCACTAGGAGGCGGAA

SEQ ID No. 363:   5'- CGTCACTAGGAGGCGGAAAC

SEQ ID No. 364:   5'- AAGACCATCCTCTAGCGATC

SEQ ID No. 365:   5'- GCACGTATTTAGCCATCCCT

5   SEQ ID No. 366:   5'- CTCTAGCGATCCAAAAGGAC

SEQ ID No. 367:   5'- CCTCTAGCGATCCAAAAGGA

SEQ ID No. 368:   5'- CCATCCTCTAGCGATCCAAA

SEQ ID No. 369:   5'- GGCACGTATTTAGCCATCCC

SEQ ID No. 370:   5'- TACGATCTAGCAAGCCGCTT

10   SEQ ID No. 371:   5'- CAGTTACGATCTAGCAAGCC

SEQ ID No. 372:   5'- CCGCAAGACCATCCTCTAGC

SEQ ID No. 373:   5'- CCATCCCTTTCTGGTAAGGT

SEQ ID No. 374:   5'- AGACCATCCTCTAGCGATCC

SEQ ID No. 375:   5'- CAAGACCATCCTCTAGCGAT

15   SEQ ID No. 376:   5'- GCTACGTCACTAGGAGGCGG

SEQ ID No. 377:   5'- TGCTACGTCACTAGGAGGCG

SEQ ID No. 378:   5'- CTACGTCACTAGGAGGCGGA

SEQ ID No. 379:   5'- CCTCAACGTCAGTTACGATC

SEQ ID No. 380:   5'- GTCACTAGGAGGCGGAAACC

20   SEQ ID No. 381:   5'- TCCTCTAGCGATCCAAAAGG

SEQ ID No. 382:   5'- TGGCACGTATTTAGCCATCC

SEQ ID No. 383:   5'- ACGATCTAGCAAGCCGCTTT

SEQ ID No. 384:   5'- GCCAGTCTCTCAACTCGGCT

SEQ ID No. 385:   5'- AAGCTAATACGCCGCAAGAC

25   SEQ ID No. 386:   5'- GTTTGCTACGTCACTAGGAG

SEQ ID No. 387:   5'- CGCCACTCTAGTCATTGCCT

SEQ ID No. 388:   5'- GGCCAGCCAGTCTCTCAACT

SEQ ID No. 389:   5'- CAGCCAGTCTCTCAACTCGG

SEQ ID No. 390:   5'- CCCGAAGATCAATTCAGCGG

30   SEQ ID No. 391:   5'- CCGGCCAGTCTCTCAACTCG

SEQ ID No. 392:   5'- CCAGCCAGTCTCTCAACTCG

SEQ ID No. 393:   5'- TCATTGCCTCACTTCACCCG

SEQ ID No. 394:   5'- GCCAGCCAGTCTCTCAACTC

SEQ ID No. 395:   5'- CACCCGAAGATCAATTCAGC

5   SEQ ID No. 396:   5'- GTCATTGCCTCACTTCACCC

SEQ ID No. 397:   5'- CATTGCCTCACTTCACCCGA

SEQ ID No. 398:   5'- ATTGCCTCACTTCACCCGAA

SEQ ID No. 399:   5'- CGAAGATCAATTCAGCGGCT

SEQ ID No. 400:   5'- AGTCATTGCCTCACTTCACC

10   SEQ ID No. 401:   5'- TCGCCACTCTAGTCATTGCC

SEQ ID No. 402:   5'- TTGCCTCACTTCACCCGAAG

SEQ ID No. 403:   5'- CGGCCAGTCTCTCAACTCGG

SEQ ID No. 404:   5'- CTGGCACGTATTTAGCCATC

SEQ ID No. 405:   5'- ACCCGAAGATCAATTCAGCG

15   SEQ ID No. 406:   5'- TCTAGCGATCCAAAAGGACC

SEQ ID No. 407:   5'- CTAGCGATCCAAAAGGACCT

SEQ ID No. 408:   5'- GCACCCATCGTTTACGGTAT

SEQ ID No. 409:   5'- CACCCATCGTTTACGGTATG

SEQ ID No. 410:   5'- GCCACTCTAGTCATTGCCTC

20   SEQ ID No. 411:   5'- CGTTTGCTACGTCACTAGGA

SEQ ID No. 412:   5'- GCCTCAACGTCAGTTACGAT

SEQ ID No. 413:   5'- GCCGGCCAGTCTCTCAACTC

SEQ ID No. 414:   5'- TCACTAGGAGGCGGAAACCT

SEQ ID No. 415:   5'- AGCCTCAACGTCAGTTACGA

25   SEQ ID No. 416:   5'- AGCCAGTCTCTCAACTCGGC

SEQ ID No. 417:   5'- GGCCAGTCTCTCAACTCGGC

SEQ ID No. 418:   5'- CAAGCTAATACGCCGCAAGA

SEQ ID No. 419:   5'- TTCGCCACTCTAGTCATTGC

SEQ ID No. 420:   5'- CCGAAGATCAATTCAGCGGC

30   SEQ ID No. 421:   5'- CGCAAGACCATCCTCTAGCG

SEQ ID No. 422:   5'- GCAAGACCATCCTCTAGCGA

SEQ ID No. 423:   5'- GCGTTTGCTACGTCACTAGG

SEQ ID No. 424:   5'- CCACTCTAGTCATTGCCTCA

SEQ ID No. 425:   5'- CACTCTAGTCATTGCCTCAC

5   SEQ ID No. 426:   5'- CCAGTCTCTCAACTCGGCTA

SEQ ID No. 427:   5'- TTACCTTAGGCACCGGCCTC

SEQ ID No. 428:   5'- ACAAGCTAATACGCCGCAAG

SEQ ID No. 429:   5'- TTTACCTTAGGCACCGGCCT

SEQ ID No. 430:   5'- TTTTACCTTAGGCACCGGCC

10   SEQ ID No. 431:   5'- ATTTTACCTTAGGCACCGGC

SEQ ID No. 432:   5'- GATTTTACCTTAGGCACCGG

SEQ ID No. 433:   5'- CTCACTTCACCCGAAGATCA

SEQ ID No. 434:   5'- ACGCCACCAGCGTTCATCCT

SEQ ID No. 435:   5'- GCCAAGCGACTTTGGGTACT

15   SEQ ID No. 436:   5'- CGGAAAATTCCCTACTGCAG

SEQ ID No. 437:   5'- CGATCTAGCAAGCCGCTTTC

SEQ ID No. 438:   5'- GGTACCGTCAAGCTGAAAAC

SEQ ID No. 439:   5'- TGCCTCACTTCACCCGAAGA

SEQ ID No. 440:   5'- GGCCGGCCAGTCTCTCAACT

20   SEQ ID No. 441:   5'- GGTAAGGTACCGTCAAGCTG

SEQ ID No. 442:   5'- GTAAGGTACCGTCAAGCTGA

SEQ ID No. 443:   5'- CCGCAAGACCATCCTCTAGG

SEQ ID No. 444:   5'- ATTTAGCCATCCCTTTCTGG

SEQ ID No. 445:   5'- AACCCTTCATCACACACG

25   SEQ ID No. 446:   5'- CGAAACCCTTCATCACAC

SEQ ID No. 447:   5'- ACCCTTCATCACACACGC

SEQ ID No. 448:   5'- TACCGTCACACACTGAAC

SEQ ID No. 449:   5'- AGATACCGTCACACACTG

SEQ ID No. 450:   5'- CACTCAAGGGCGGAAACC

30   SEQ ID No. 451:   5'- ACCGTCACACACTGAACA

SEQ ID No. 452:   5'- CGTCACACACTGAACAGT

SEQ ID No. 453:   5'- CCGAAACCCTTCATCACA

SEQ ID No. 454:   5'- CCGTCACACACTGAACAG

SEQ ID No. 455:   5'- GATACCGTCACACACTGA

5   SEQ ID No. 456:   5'- GGTAAGATACCGTCACAC

SEQ ID No. 457:   5'- CCCTTCATCACACACGCG

SEQ ID No. 458:   5'- ACAGTGTTTACGAGCCG

SEQ ID No. 459:   5'- CAGTGTTTACGAGCCGA

SEQ ID No. 460:   5'- ACAAAGCGTTCGACTTGC

10   SEQ ID No. 461:   5'- CGGATAACGCTTGGAACA

SEQ ID No. 462:   5'- AGGGCGGAAACCCTCGAA

SEQ ID No. 463:   5'- GGGCGGAAACCCTCGAAC

SEQ ID No. 464:   5'- GGCGGAAACCCTCGAACA

SEQ ID No. 465:   5'- TGAGGGCTTTCACTTCAG

15   SEQ ID No. 466:   5'- AGGGCTTTCACTTCAGAC

SEQ ID No. 467:   5'- GAGGGCTTTCACTTCAGA

SEQ ID No. 468:   5'- ACTGCACTCAAGTCATCC

SEQ ID No. 469:   5'- CCGGATAACGCTTGGAAC

SEQ ID No. 470:   5'- TCCGGATAACGCTTGGAA

20   SEQ ID No. 471:   5'- TATCCCTGCTAAGAGGT

SEQ ID No. 472:   5'- CCTGCTAAGAGGTAGGTT

SEQ ID No. 473:   5'- CCCTGCTAAGAGGTAGGT

SEQ ID No. 474:   5'- CCCCTGCTAAGAGGTAGG

SEQ ID No. 475:   5'- TCCCCTGCTAAGAGGTAG

25   SEQ ID No. 476:   5'- ATCCCCTGCTAAGAGGTA

SEQ ID No. 477:   5'- CCGTTCCTTTCTGGTAAG

SEQ ID No. 478:   5'- GCCGTTCCTTTCTGGTAA

SEQ ID No. 479:   5'- AGCCGTTCCTTTCTGGTA

SEQ ID No. 480:   5'- GCACGTATTTAGCCGTTC

30   SEQ ID No. 481:   5'- CACGTATTTAGCCGTTCC

SEQ ID No. 482:   5'- GGCACGTATTTAGCCGTT

SEQ ID No. 483:   5'- CACTTTCCTCTACTGCAC

SEQ ID No. 484:   5'- CCACTTTCCTCTACTGCA

SEQ ID No. 485:   5'- TCCACTTTCCTCTACTGC

5   SEQ ID No. 486:   5'- CTTTCCTCTACTGCACTC

SEQ ID No. 487:   5'- TAGCCGTTCCTTTCTGGT

SEQ ID No. 488:   5'- TTAGCCGTTCCTTTCTGG

SEQ ID No. 489:   5'- TTATCCCTGCTAAGAGG

SEQ ID No. 490:   5'- GTTATCCCTGCTAAGAG

10   SEQ ID No. 491:   5'- CCCGTTCGCCACTCTTTG

SEQ ID No. 492:   5'- AGCTGAGGGCTTTCACTT

SEQ ID No. 493:   5'- GAGCTGAGGGCTTTCACT

SEQ ID No. 494:   5'- GCTGAGGGCTTTCACTTC

SEQ ID No. 495:   5'- CTGAGGGCTTTCACTTCA

15   SEQ ID No. 496:   5' CCCGTGTCCCGAAGGAAC

SEQ ID No. 497:   5' GCACGAGTATGTCAAGAC

SEQ ID No. 498:   5' GTATCCCGTGTCCCGAAG

SEQ ID No. 499:   5' TCCCGTGTCCCGAAGGAA

SEQ ID No. 500:   5' ATCCCGTGTCCCGAAGGA

20   SEQ ID No. 501:   5' TATCCCGTGTCCCGAAGG

SEQ ID No. 502:   5' CTTACCTTAGGAAGCGCC

SEQ ID No. 503:   5' TTACCTTAGGAAGCGCCC

SEQ ID No. 504:   5' CCTGTATCCCGTGTCCCG

SEQ ID No. 505:   5' CCACCTGTATCCCGTGTC

25   SEQ ID No. 506:   5' CACCTGTATCCCGTGTCC

SEQ ID No. 507:   5' ACCTGTATCCCGTGTCCC

SEQ ID No. 508:   5' CTGTATCCCGTGTCCCGA

SEQ ID No. 509:   5' TGTATCCCGTGTCCCGAA

SEQ ID No. 510:   5' CACGAGTATGTCAAGACC

30   SEQ ID No. 511:   5' CGGTCTTACCTTAGGAAG

SEQ ID No. 512:   5′ TAGGAAGCGCCCTCCTTG

SEQ ID No. 513:   5′ AGGAAGCGCCCTCCTTGC

SEQ ID No. 514:   5′ TTAGGAAGCGCCCTCCTT

SEQ ID No. 515:   5′ CTTAGGAAGCGCCCTCCT

5   SEQ ID No. 516:   5′ CCTTAGGAAGCGCCCTCC

SEQ ID No. 517:   5′ ACCTTAGGAAGCGCCCTC

SEQ ID No. 518:   5′ TGCACACAATGGTTGAGC

SEQ ID No. 519:   5′ TACCTTAGGAAGCGCCCT

SEQ ID No. 520:   5′ ACCACCTGTATCCCGTGT

10   SEQ ID No. 521:   5′ GCACCACCTGTATCCCGT

SEQ ID No. 522:   5′ CACCACCTGTATCCCGTG

SEQ ID No. 523:   5′ GCGGTTAGGCAACCTACT

SEQ ID No. 524:   5′ TGCGGTTAGGCAACCTAC

SEQ ID No. 525:   5′ TTGCGGTTAGGCAACCTA

15   SEQ ID No. 526:   5′ GGTCTTACCTTAGGAAGC

SEQ ID No. 527:   5′ GCTAATACAACGCGGGAT

SEQ ID No. 528:   5′ CTAATACAACGCGGGATC

SEQ ID No. 529:   5′ ATACAACGCGGGATCATC

SEQ ID No. 530:   5′ CGGTTAGGCAACCTACTT

20   SEQ ID No. 531:   5′ TGCACCACCTGTATCCCG

SEQ ID No. 532:   5′ GAAGCGCCCTCCTTGCGG

SEQ ID No. 533:   5′ GGAAGCGCCCTCCTTGCG

SEQ ID No. 534:   5′ CGTCCCTTTCTGGTTAGA

SEQ ID No. 535:   5′ AGCTAATACAACGCGGGA

25   SEQ ID No. 536:   5′ TAGCTAATACAACGCGGG

SEQ ID No. 537:   5′ CTAGCTAATACAACGCGG

SEQ ID No. 538:   5′ GGCTATGTATCATCGCCT

SEQ ID No. 539:   5′ GAGCCACTGCCTTTTACA

SEQ ID No. 540:   5′ GTCGGCTATGTATCATCG

30   SEQ ID No. 541:   5′ GGTCGGCTATGTATCATC

SEQ ID No. 542:   5′ CAGGTCGGCTATGTATCA

SEQ ID No. 543:   5′ CGGCTATGTATCATCGCC

SEQ ID No. 544:   5′ TCGGCTATGTATCATCGC

SEQ ID No. 545:   5′ GTCTTACCTTAGGAAGCG

5   SEQ ID No. 546:   5′ TCTTACCTTAGGAAGCGC

SEQ ID No. 547:   5′- GTACAAACCGCCTACACGCC

SEQ ID No. 548:   5′- TGTACAAACCGCCTACACGC

SEQ ID No. 549:   5′- GATCAGCACGATGTCGCCAT

SEQ ID No. 550:   5′- CTGTACAAACCGCCTACACG

10   SEQ ID No. 551:   5′- GAGATCAGCACGATGTCGCC

SEQ ID No. 552:   5′- AGATCAGCACGATGTCGCCA

SEQ ID No. 553:   5′- ATCAGCACGATGTCGCCATC

SEQ ID No. 554:   5′- TCAGCACGATGTCGCCATCT

SEQ ID No. 555:   5′- ACTGTACAAACCGCCTACAC

15   SEQ ID No. 556:   5′- CCGCCACTAAGGCCGAAACC

SEQ ID No. 557:   5′- CAGCACGATGTCGCCATCTA

SEQ ID No. 558:   5′- TACAAACCGCCTACACGCCC

SEQ ID No. 559:   5′- AGCACGATGTCGCCATCTAG

SEQ ID No. 560:   5′- CGGCTTTTAGAGATCAGCAC

20   SEQ ID No. 561:   5′- TCCGCCACTAAGGCCGAAAC

SEQ ID No. 562:   5′- GACTGTACAAACCGCCTACA

SEQ ID No. 563:   5′- GTCCGCCACTAAGGCCGAAA

SEQ ID No. 564:   5′- GGGGATTTCACATCTGACTG

SEQ ID No. 565:   5′- CATACAAGCCCTGGTAAGGT

25   SEQ ID No. 566:   5′- ACAAGCCCTGGTAAGGTTCT

SEQ ID No. 567:   5′- ACAAACCGCCTACACGCCCT

SEQ ID No. 568:   5′- CTGACTGTACAAACCGCCTA

SEQ ID No. 569:   5′- TGACTGTACAAACCGCCTAC

SEQ ID No. 570:   5′- ACGATGTCGCCATCTAGCTT

30   SEQ ID No. 571:   5′- CACGATGTCGCCATCTAGCT

SEQ ID No. 572:   5'- CGATGTCGCCATCTAGCTTC

SEQ ID No. 573:   5'- GCACGATGTCGCCATCTAGC

SEQ ID No. 574:   5'- GATGTCGCCATCTAGCTTCC

SEQ ID No. 575:   5'- ATGTCGCCATCTAGCTTCCC

5   SEQ ID No. 576:   5'- TGTCGCCATCTAGCTTCCCA

SEQ ID No. 577:   5'- GCCATCTAGCTTCCCACTGT

SEQ ID No. 578:   5'- TCGCCATCTAGCTTCCCACT

SEQ ID No. 579:   5'- CGCCATCTAGCTTCCCACTG

SEQ ID No. 580:   5'- GTCGCCATCTAGCTTCCCAC

10   SEQ ID No. 581:   5'- TACAAGCCCTGGTAAGGTTC

SEQ ID No. 582:   5'- GCCACTAAGGCCGAAACCTT

SEQ ID No. 583:   5'- ACTAAGGCCGAAACCTTCGT

SEQ ID No. 584:   5'- CTAAGGCCGAAACCTTCGTG

SEQ ID No. 585:   5'- CACTAAGGCCGAAACCTTCG

15   SEQ ID No. 586:   5'- AAGGCCGAAACCTTCGTGCG

SEQ ID No. 587:   ' 5'- CCACTAAGGCCGAAACCTTC

SEQ ID No. 588:   5'- TAAGGCCGAAACCTTCGTGC

SEQ ID No. 589:   5'- AGGCCGAAACCTTCGTGCGA

SEQ ID No. 590:   5'- TCTGACTGTACAAACCGCCT

20   SEQ ID No. 591:   5'- CATCTGACTGTACAAACCGC

SEQ ID No. 592:   5'- ATCTGACTGTACAAACCGCC

SEQ ID No. 593:   5'- GTTCGTGCGACTTGCATGTG

SEQ ID No. 594:   5'- CCTTCGTGCGACTTGCATGT

SEQ ID No. 595:   5'- CTCTCTAGAGTGCCCACCCA

25   SEQ ID No. 596:   5'- TCTCTAGAGTGCCCACCCAA

SEQ ID No. 597:   5'- ACGTATCAAATGCAGCTCCC

SEQ ID No. 598:   5'- CGTATCAAATGCAGCTCCCA

SEQ ID No. 599:   5'- CGCCACTAAGGCCGAAACCT

SEQ ID No. 600:   5'- CCGAAACCTTCGTGCGACTT

30   SEQ ID No. 601:   5'- GCCGAAACCTTCGTGCGACT

SEQ ID No. 602:   5'- AACCTTCGTGCGACTTGCAT

SEQ ID No. 603:   5'- CGAAACCTTCGTGCGACTTG

SEQ ID No. 604:   5'- ACCTTCGTGCGACTTGCATG

SEQ ID No. 605:   5'- GAAACCTTCGTGCGACTTGC

5   SEQ ID No. 606:   5'- GGCCGAAACCTTCGTGCGAC

SEQ ID No. 607:   5'- AAACCTTCGTGCGACTTGCA

SEQ ID No. 608:   5'- CACGTATCAAATGCAGCTCC

SEQ ID No. 609:   5'- GCTCACCGGCTTAAGGTCAA

SEQ ID No. 610:   5'- CGCTCACCGGCTTAAGGTCA

10   SEQ ID No. 611:   5'- TCGCTCACCGGCTTAAGGTC

SEQ ID No. 612:   5'- CTCACCGGCTTAAGGTCAAA

SEQ ID No. 613:   5'- CCCGACCGTGGTCGGCTGCG

SEQ ID No. 614:   5'- GCTCACCGGCTTAAGGTCAA

SEQ ID No. 615:   5'- CGCTCACCGGCTTAAGGTCA

15   SEQ ID No. 616:   5'- TCGCTCACCGGCTTAAGGTC

SEQ ID No. 617:   5'- CTCACCGGCTTAAGGTCAAA

SEQ ID No. 618:   5'- CCCGACCGTGGTCGGCTGCG

SEQ ID No. 619:   5'- TCACCGGCTTAAGGTCAAAC

SEQ ID No. 620:   5'- CAACCCTCTCTCACACTCTA

20   SEQ ID No. 621:   5'- ACAACCCTCTCTCACACTCT

SEQ ID No. 622:   5'- CCACAACCCTCTCTCACACT

SEQ ID No. 623:   5'- AACCCTCTCTCACACTCTAG

SEQ ID No. 624:   5'- CACAACCCTCTCTCACACTC

SEQ ID No. 625:   5'- TCCACAACCCTCTCTCACAC

25   SEQ ID No. 626:   5'- TTCCACAACCCTCTCTCACA

SEQ ID No. 627:   5'- ACCCTCTCTCACACTCTAGT

SEQ ID No. 628:   5'- GAGCCAGGTTGCCGCCTTCG

SEQ ID No. 629:   5'- AGGTCAAACCAACTCCCATG

SEQ ID No. 630:   5'- ATGAGCCAGGTTGCCGCCTT

30   SEQ ID No. 631:   5'- TGAGCCAGGTTGCCGCCTTC

SEQ ID No. 632:   5'- AGGCTCCTCCACAGGCGACT

SEQ ID No. 633:   5'- CAGGCTCCTCCACAGGCGAC

SEQ ID No. 634:   5'- GCAGGCTCCTCCACAGGCGA

SEQ ID No. 635:   5'- TTCGCTCACCGGCTTAAGGT

5   SEQ ID No. 636:   5'- GTTCGCTCACCGGCTTAAGG

SEQ ID No. 637:   5'- GGTTCGCTCACCGGCTTAAG

SEQ ID No. 638:   5'- ATTCCACAACCCTCTCTCAC

SEQ ID No. 639:   5'- TGACCCGACCGTGGTCGGCT

SEQ ID No. 640:   5'- CCCTCTCTCACACTCTAGTC

10   SEQ ID No. 641:   5'- GAATTCCACAACCCTCTCTC

SEQ ID No. 642:   5'- AGCCAGGTTGCCGCCTTCGC

SEQ ID No. 643:   5'- GCCAGGTTGCCGCCTTCGCC

SEQ ID No. 644:   5'- GGAATTCCACAACCCTCTCT

SEQ ID No. 645:   5'- GGGAATTCCACAACCCTCTC

15   SEQ ID No. 646:   5'- AACGCAGGCTCCTCCACAGG

SEQ ID No. 647:   5'- CGGCTTAAGGTCAAACCAAC

SEQ ID No. 648:   5'- CCGGCTTAAGGTCAAACCAA

SEQ ID No. 649:   5'- CACCGGCTTAAGGTCAAACC

SEQ ID No. 650:   5'- ACCGGCTTAAGGTCAAACCA

20   SEQ ID No. 651:   5'- ACCCAACATCCAGCACACAT

SEQ ID No. 652:   5'- TCGCTGACCCGACCGTGGTC

SEQ ID No. 653:   5'- CGCTGACCCGACCGTGGTCG

SEQ ID No. 654:   5'- GACCCGACCGTGGTCGGCTG

SEQ ID No. 655:   5'- GCTGACCCGACCGTGGTCGG

25   SEQ ID No. 656:   5'- CTGACCCGACCGTGGTCGGC

SEQ ID No. 657:   5'- CAGGCGACTTGCGCCTTTGA

SEQ ID No. 658:   5'- TCATGCGGTATTAGCTCCAG

SEQ ID No. 659:   5'- ACTAGCTAATCGAACGCAGG

SEQ ID No. 660:   5'- CATGCGGTATTAGCTCCAGT

30   SEQ ID No. 661:   5'- CGCAGGCTCCTCCACAGGCG

SEQ ID No. 662:   5'- ACGCAGGCTCCTCCACAGGC

SEQ ID No. 663:   5'- CTCAGGTGTCATGCGGTATT

SEQ ID No. 664:   5'- CGCCTTTGACCCTCAGGTGT

SEQ ID No. 665:   5'- ACCCTCAGGTGTCATGCGGT

5   SEQ ID No. 666:   5'- CCTCAGGTGTCATGCGGTAT

SEQ ID No. 667:   5'- TTTGACCCTCAGGTGTCATG

SEQ ID No. 668:   5'- GACCCTCAGGTGTCATGCGG

SEQ ID No. 669:   5'- TGACCCTCAGGTGTCATGCG

SEQ ID No. 670:   5'- GCCTTTGACCCTCAGGTGTC

10   SEQ ID No. 671:   5'- TTGACCCTCAGGTGTCATGC

SEQ ID No. 672:   5'- CCCTCAGGTGTCATGCGGTA

SEQ ID No. 673:   5'- CCTTTGACCCTCAGGTGTCA

SEQ ID No. 674:   5'- CTTTGACCCTCAGGTGTCAT

SEQ ID No. 675:   5'- AGTTATCCCCCACCCATGGA

15   SEQ ID No. 676:   5'- CCAGCTATCGATCATCGCCT

SEQ ID No. 677:   5'- ACCAGCTATCGATCATCGCC

SEQ ID No. 678:   5'- CAGCTATCGATCATCGCCTT

SEQ ID No. 679:   5'- AGCTATCGATCATCGCCTTG

SEQ ID No. 680:   5'- GCTATCGATCATCGCCTTGG

20   SEQ ID No. 681:   5'- CTATCGATCATCGCCTTGGT

SEQ ID No. 682:   5'- TTCGTGCGACTTGCATGTGT

SEQ ID No. 683:   5'- TCGATCATCGCCTTGGTAGG

SEQ ID No. 684:   5'- ATCGATCATCGCCTTGGTAG

SEQ ID No. 685:   5'- CACAGGCGACTTGCGCCTTT

25   SEQ ID No. 686:   5'- CCACAGGCGACTTGCGCCTT

SEQ ID No. 687:   5'- TCCACAGGCGACTTGCGCCT

SEQ ID No. 688:   5'- TCCTCCACAGGCGACTTGCG

SEQ ID No. 689:   5'- CCTCCACAGGCGACTTGCGC

SEQ ID No. 690:   5'- CTCCACAGGCGACTTGCGCC

30   SEQ ID No. 691:   5'- ACAGGCGACTTGCGCCTTTG

SEQ ID No. 692:   5'- GCTCACCGGCTTAAGGTCAA

SEQ ID No. 693:   5'- CGCTCACCGGCTTAAGGTCA

SEQ ID No. 694:   5'- TCGCTCACCGGCTTAAGGTC

SEQ ID No. 695:   5'- CTCACCGGCTTAAGGTCAAA

5   SEQ ID No. 696:   5'- CCCGACCGTGGTCGGCTGCG

SEQ ID No. 697:   5'- TCACCGGCTTAAGGTCAAAC

SEQ ID No. 698:   5'- CAACCCTCTCTCACACTCTA

SEQ ID No. 699:   5'- ACAACCCTCTCTCACACTCT

SEQ ID No. 700:   5'- CCACAACCCTCTCTCACACT

10   SEQ ID No. 701:   5'- AACCCTCTCTCACACTCTAG

SEQ ID No. 702:   5'- CACAACCCTCTCTCACACTC

SEQ ID No. 703:   5'- TCCACAACCCTCTCTCACAC

SEQ ID No. 704:   5'- TTCCACAACCCTCTCTCACA

SEQ ID No. 705:   5'- ACCCTCTCTCACACTCTAGT

15   SEQ ID No. 706:   5'- GAGCCAGGTTGCCGCCTTCG

SEQ ID No. 707:   5'- AGGTCAAACCAACTCCCATG

SEQ ID No. 708:   5'- ATGAGCCAGGTTGCCGCCTT

SEQ ID No. 709:   5'- TGAGCCAGGTTGCCGCCTTC

SEQ ID No. 710:   5'- AGGCTCCTCCACAGGCGACT

20   SEQ ID No. 711:   5'- CAGGCTCCTCCACAGGCGAC

SEQ ID No. 712:   5'- GCAGGCTCCTCCACAGGCGA

SEQ ID No. 713:   5'- TTCGCTCACCGGCTTAAGGT

SEQ ID No. 714:   5'- GTTCGCTCACCGGCTTAAGG

SEQ ID No. 715:   5'- GGTTCGCTCACCGGCTTAAG

25   SEQ ID No. 716:   5'- ATTCCACAACCCTCTCTCAC

SEQ ID No. 717:   5'- TGACCCGACCGTGGTCGGCT

SEQ ID No. 718:   5'- CCCTCTCTCACACTCTAGTC

SEQ ID No. 719:   5'- GAATTCCACAACCCTCTCTC

SEQ ID No. 720:   5'- AGCCAGGTTGCCGCCTTCGC

30   SEQ ID No. 721:   5'- GCCAGGTTGCCGCCTTCGCC

SEQ ID No. 722:   5'- GGAATTCCACAACCCTCTCT

SEQ ID No. 723:   5'- GGGAATTCCACAACCCTCTC

SEQ ID No. 724:   5'- AACGCAGGCTCCTCCACAGG

SEQ ID No. 725:   5'- CGGCTTAAGGTCAAACCAAC

5   SEQ ID No. 726:   5'- CCGGCTTAAGGTCAAACCAA

SEQ ID No. 727:   5'- CACCGGCTTAAGGTCAAACC

SEQ ID No. 728:   5'- ACCGGCTTAAGGTCAAACCA

SEQ ID No. 729:   5'- ACCCAACATCCAGCACACAT

SEQ ID No. 730:   5'- TCGCTGACCCGACCGTGGTC

10   SEQ ID No. 731:   5'- CGCTGACCCGACCGTGGTCG

SEQ ID No. 732:   5'- GACCCGACCGTGGTCGGCTG

SEQ ID No. 733:   5'- GCTGACCCGACCGTGGTCGG

SEQ ID No. 734:   5'- CTGACCCGACCGTGGTCGGC

SEQ ID No. 735:   5'- CAGGCGACTTGCGCCTTTGA

15   SEQ ID No. 736:   5'- TCATGCGGTATTAGCTCCAG

SEQ ID No. 737:   5'- ACTAGCTAATCGAACGCAGG

SEQ ID No. 738:   5'- CATGCGGTATTAGCTCCAGT

SEQ ID No. 739:   5'- CGCAGGCTCCTCCACAGGCG

SEQ ID No. 740:   5'- ACGCAGGCTCCTCCACAGGC

20   SEQ ID No. 741:   5'- CTCAGGTGTCATGCGGTATT

SEQ ID No. 742:   5'- CGCCTTTGACCCTCAGGTGT

SEQ ID No. 743:   5'- ACCCTCAGGTGTCATGCGGT

SEQ ID No. 744:   5'- CCTCAGGTGTCATGCGGTAT

SEQ ID No. 745:   5'- TTTGACCCTCAGGTGTCATG

25   SEQ ID No. 746:   5'- GACCCTCAGGTGTCATGCGG

SEQ ID No. 747:   5'- TGACCCTCAGGTGTCATGCG

SEQ ID No. 748:   5'- GCCTTTGACCCTCAGGTGTC

SEQ ID No. 749:   5'- TTGACCCTCAGGTGTCATGC

SEQ ID No. 750:   5'- CCCTCAGGTGTCATGCGGTA

30   SEQ ID No. 751:   5'- CCTTTGACCCTCAGGTGTCA

SEQ ID No. 752:   5'- CTTTGACCCTCAGGTGTCAT

SEQ ID No. 753:   5'- AGTTATCCCCCACCCATGGA

SEQ ID No. 754:   5'- CCAGCTATCGATCATCGCCT

SEQ ID No. 755:   5'- ACCAGCTATCGATCATCGCC

5   SEQ ID No. 756:   5'- CAGCTATCGATCATCGCCTT

SEQ ID No. 757:   5'- AGCTATCGATCATCGCCTTG

SEQ ID No. 758:   5'- GCTATCGATCATCGCCTTGG

SEQ ID No. 759:   5'- CTATCGATCATCGCCTTGGT

SEQ ID No. 760:   5'- TTCGTGCGACTTGCATGTGT

10   SEQ ID No. 761:   5'- TCGATCATCGCCTTGGTAGG

SEQ ID No. 762:   5'- ATCGATCATCGCCTTGGTAG

SEQ ID No. 763:   5'- CACAGGCGACTTGCGCCTTT

SEQ ID No. 764:   5'- CCACAGGCGACTTGCGCCTT

SEQ ID No. 765:   5'- TCCACAGGCGACTTGCGCCT

15   SEQ ID No. 766:   5'- TCCTCCACAGGCGACTTGCG

SEQ ID No. 767:   5'- CCTCCACAGGCGACTTGCGC

SEQ ID No. 768:   5'- CTCCACAGGCGACTTGCGCC

SEQ ID No. 769:   5'- ACAGGCGACTTGCGCCTTTG

SEQ ID No. 770:   5'- TCACCGGCTTAAGGTCAAAC

20   SEQ ID No. 771:   5'- CAACCCTCTCTCACACTCTA

SEQ ID No. 772:   5'- ACAACCCTCTCTCACACTCT

SEQ ID No. 773:   5'- CCACAACCCTCTCTCACACT

SEQ ID No. 774:   5'- AACCCTCTCTCACACTCTAG

SEQ ID No. 775:   5'- CACAACCCTCTCTCACACTC

25   SEQ ID No. 776:   5'- TCCACAACCCTCTCTCACAC

SEQ ID No. 777:   5'- TTCCACAACCCTCTCTCACA

SEQ ID No. 778:   5'- ACCCTCTCTCACACTCTAGT

SEQ ID No. 779:   5'- GAGCCAGGTTGCCGCCTTCG

SEQ ID No. 780:   5'- AGGTCAAACCAACTCCCATG

30   SEQ ID No. 781:   5'- ATGAGCCAGGTTGCCGCCTT

	SEQ ID No. 782:	5′- TGAGCCAGGTTGCCGCCTTC
	SEQ ID No. 783:	5′- AGGCTCCTCCACAGGCGACT
	SEQ ID No. 784:	5′- CAGGCTCCTCCACAGGCGAC
	SEQ ID No. 785:	5′- GCAGGCTCCTCCACAGGCGA
5	SEQ ID No. 786:	5′- TTCGCTCACCGGCTTAAGGT
	SEQ ID No. 787:	5′- GTTCGCTCACCGGCTTAAGG
	SEQ ID No. 788:	5′- GGTTCGCTCACCGGCTTAAG
	SEQ ID No. 789:	5′- ATTCCACAACCCTCTCTCAC
	SEQ ID No. 790:	5′- TGACCCGACCGTGGTCGGCT
10	SEQ ID No. 791:	5′- CCCTCTCTCACACTCTAGTC
	SEQ ID No. 792:	5′- GAATTCCACAACCCTCTCTC
	SEQ ID No. 793:	5′- AGCCAGGTTGCCGCCTTCGC
	SEQ ID No. 794:	5′- GCCAGGTTGCCGCCTTCGCC
	SEQ ID No. 795:	5′- GGAATTCCACAACCCTCTCT
15	SEQ ID No. 796:	5′- GGGAATTCCACAACCCTCTC
	SEQ ID No. 797:	5′- AACGCAGGCTCCTCCACAGG
	SEQ ID No. 798:	5′- CGGCTTAAGGTCAAACCAAC
	SEQ ID No. 799:	5′- CCGGCTTAAGGTCAAACCAA
	SEQ ID No. 800:	5′- CACCGGCTTAAGGTCAAACC
20	SEQ ID No. 801:	5′- ACCGGCTTAAGGTCAAACCA
	SEQ ID No. 802:	5′- ACCCAACATCCAGCACACAT
	SEQ ID No. 803:	5′- TCGCTGACCCGACCGTGGTC
	SEQ ID No. 804:	5′- CGCTGACCCGACCGTGGTCG
	SEQ ID No. 805:	5′- GACCCGACCGTGGTCGGCTG
25	SEQ ID No. 806:	5′- GCTGACCCGACCGTGGTCGG
	SEQ ID No. 807:	5′- CTGACCCGACCGTGGTCGGC
	SEQ ID No. 808:	5′- CAGGCGACTTGCGCCTTTGA
	SEQ ID No. 809:	5′- TCATGCGGTATTAGCTCCAG
	SEQ ID No. 810:	5′- ACTAGCTAATCGAACGCAGG
30	SEQ ID No. 811:	5′- CATGCGGTATTAGCTCCAGT

SEQ ID No. 812:   5'- CGCAGGCTCCTCCACAGGCG

SEQ ID No. 813:   5'- ACGCAGGCTCCTCCACAGGC

SEQ ID No. 814:   5'- CTCAGGTGTCATGCGGTATT

SEQ ID No. 815:   5'- CGCCTTTGACCCTCAGGTGT

5   SEQ ID No. 816:   5'- ACCCTCAGGTGTCATGCGGT

SEQ ID No. 817:   5'- CCTCAGGTGTCATGCGGTAT

SEQ ID No. 818:   5'- TTTGACCCTCAGGTGTCATG

SEQ ID No. 819:   5'- GACCCTCAGGTGTCATGCGG

SEQ ID No. 820:   5'- TGACCCTCAGGTGTCATGCG

10 SEQ ID No. 821:   5'- GCCTTTGACCCTCAGGTGTC

SEQ ID No. 822:   5'- TTGACCCTCAGGTGTCATGC

SEQ ID No. 823:   5'- CCCTCAGGTGTCATGCGGTA

SEQ ID No. 824:   5'- CCTTTGACCCTCAGGTGTCA

SEQ ID No. 825:   5'- CTTTGACCCTCAGGTGTCAT

15 SEQ ID No. 826:   5'- AGTTATCCCCCACCCATGGA

SEQ ID No. 827:   5'- CCAGCTATCGATCATCGCCT

SEQ ID No. 828:   5'- ACCAGCTATCGATCATCGCC

SEQ ID No. 829:   5'- CAGCTATCGATCATCGCCTT

SEQ ID No. 830:   5'- AGCTATCGATCATCGCCTTG

20 SEQ ID No. 831:   5'- GCTATCGATCATCGCCTTGG

SEQ ID No. 832:   5'- CTATCGATCATCGCCTTGGT

SEQ ID No. 833:   5'- TTCGTGCGACTTGCATGTGT

SEQ ID No. 834:   5'- TCGATCATCGCCTTGGTAGG

SEQ ID No. 835:   5'- ATCGATCATCGCCTTGGTAG

25 SEQ ID No. 836:   5'- CACAGGCGACTTGCGCCTTT

SEQ ID No. 837:   5'- CCACAGGCGACTTGCGCCTT

SEQ ID No. 838:   5'- TCCACAGGCGACTTGCGCCT

SEQ ID No. 839:   5'- TCCTCCACAGGCGACTTGCG

SEQ ID No. 840:   5'- CCTCCACAGGCGACTTGCGC

30 SEQ ID No. 841:   5'- CTCCACAGGCGACTTGCGCC

SEQ ID No. 842:   5´- ACAGGCGACTTGCGCCTTTG

SEQ ID No. 843:   5´- AGCCCCGGTTTCCCGGCGTT

SEQ ID No. 844:   5´- CGCCTTTCCTTTTTCCTCCA

SEQ ID No. 845:   5´- GCCCCGGTTTCCCGGCGTTA

5   SEQ ID No. 846:   5´- GCCGCCTTTCCTTTTTCCTC

SEQ ID No. 847:   5´- TAGCCCCGGTTTCCCGGCGT

SEQ ID No. 848:   5´- CCGGGTACCGTCAAGGCGCC

SEQ ID No. 849:   5´- AAGCCGCCTTTCCTTTTTCC

SEQ ID No. 850:   5´- CCCCGGTTTCCCGGCGTTAT

10   SEQ ID No. 851:   5´- CCGGCGTTATCCCAGTCTTA

SEQ ID No. 852:   5´- AGCCGCCTTTCCTTTTTCCT

SEQ ID No. 853:   5´- CCGCCTTTCCTTTTTCCTCC

SEQ ID No. 854:   5´- TTAGCCCCGGTTTCCCGGCG

SEQ ID No. 855:   5´- CCCGGCGTTATCCCAGTCTT

15   SEQ ID No. 856:   5´- GCCGGGTACCGTCAAGGCGC

SEQ ID No. 857:   5´- GGCCGGGTACCGTCAAGGCG

SEQ ID No. 858:   5´- TCCCGGCGTTATCCCAGTCT

SEQ ID No. 859:   5´- TGGCCGGGTACCGTCAAGGC

SEQ ID No. 860:   5´- GAAGCCGCCTTTCCTTTTTC

20   SEQ ID No. 861:   5´- CCCGGTTTCCCGGCGTTATC

SEQ ID No. 862:   5´- CGGCGTTATCCCAGTCTTAC

SEQ ID No. 863:   5´- GGCGTTATCCCAGTCTTACA

SEQ ID No. 864:   5´- GCGTTATCCCAGTCTTACAG

SEQ ID No. 865:   5´- CGGGTACCGTCAAGGCGCCG

25   SEQ ID No. 866:   5´- ATTAGCCCCGGTTTCCCGGC

SEQ ID No. 867:   5´- AAGGGGAAGGCCCTGTCTCC

SEQ ID No. 868:   5´- GGCCCTGTCTCCAGGGAGGT

SEQ ID No. 869:   5´- AGGCCCTGTCTCCAGGGAGG

SEQ ID No. 870:   5´- AAGGCCCTGTCTCCAGGGAG

30   SEQ ID No. 871:   5´- GCCCTGTCTCCAGGGAGGTC

SEQ ID No. 872:   5′- CGTTATCCCAGTCTTACAGG

SEQ ID No. 873:   5′- GGGTACCGTCAAGGCGCCGC

SEQ ID No. 874:   5′- CGGCAACAGAGTTTTACGAC

SEQ ID No. 875:   5′- GGGGAAGGCCCTGTCTCCAG

5   SEQ ID No. 876:   5′- AGGGGAAGGCCCTGTCTCCA

SEQ ID No. 877:   5′- GCAGCCGAAGCCGCCTTTCC

SEQ ID No. 878:   5′- TTCTTCCCCGGCAACAGAGT

SEQ ID No. 879:   5′- CGGCACTTGTTCTTCCCCGG

SEQ ID No. 880:   5′- GTTCTTCCCCGGCAACAGAG

10   SEQ ID No. 881:   5′- GGCACTTGTTCTTCCCCGGC

SEQ ID No. 882:   5′- GCACTTGTTCTTCCCCGGCA

SEQ ID No. 883:   5′- CACTTGTTCTTCCCCGGCAA

SEQ ID No. 884:   5′- TCTTCCCCGGCAACAGAGTT

SEQ ID No. 885:   5′- TTGTTCTTCCCCGGCAACAG

15   SEQ ID No. 886:   5′- ACTTGTTCTTCCCCGGCAAC

SEQ ID No. 887:   5′- TGTTCTTCCCCGGCAACAGA

SEQ ID No. 888:   5′- CTTGTTCTTCCCCGGCAACA

SEQ ID No. 889:   5′- ACGGCACTTGTTCTTCCCCG

SEQ ID No. 890:   5′- GTCCGCCGCTAACCTTTTAA

20   SEQ ID No. 891:   5′- CTGGCCGGGTACCGTCAAGG

SEQ ID No. 892:   5′- TCTGGCCGGGTACCGTCAAG

SEQ ID No. 893:   5′- TTCTGGCCGGGTACCGTCAA

SEQ ID No. 894:   5′- CAATGCTGGCAACTAAGGTC

SEQ ID No. 895:   5′- CGTCCGCCGCTAACCTTTTA

25   SEQ ID No. 896:   5′- CGAAGCCGCCTTTCCTTTTT

SEQ ID No. 897:   5′- CCGAAGCCGCCTTTCCTTTT

SEQ ID No. 898:   5′- GCCGAAGCCGCCTTTCCTTT

SEQ ID No. 899:   5′- AGCCGAAGCCGCCTTTCCTT

SEQ ID No. 900:   5′- ACCGTCAAGGCGCCGCCCTG

30   SEQ ID No. 901:   5′- CCGTGGCTTTCTGGCCGGGT

SEQ ID No. 902:   5'- GCTTTCTGGCCGGGTACCGT

SEQ ID No. 903:   5'- GCCGTGGCTTTCTGGCCGGG

SEQ ID No. 904:   5'- GGCTTTCTGGCCGGGTACCG

SEQ ID No. 905:   5'- CTTTCTGGCCGGGTACCGTC

5   SEQ ID No. 906:   5'- TGGCTTTCTGGCCGGGTACC

SEQ ID No. 907:   5'- GTGGCTTTCTGGCCGGGTAC

SEQ ID No. 908:   5'- CGTGGCTTTCTGGCCGGGTA

SEQ ID No. 909:   5'- TTTCTGGCCGGGTACCGTCA

SEQ ID No. 910:   5'- GGGAAGGCCCTGTCTCCAGG

10   SEQ ID No. 911:   5'- CGAAGGGGAAGGCCCTGTCT

SEQ ID No. 912:   5'- CCGAAGGGGAAGGCCCTGTC

SEQ ID No. 913:   5'- GAAGGGGAAGGCCCTGTCTC

SEQ ID No. 914:   5'- GGCGCCGCCCTGTTCGAACG

SEQ ID No. 915:   5'- AGGCGCCGCCCTGTTCGAAC

15   SEQ ID No. 916:   5'- AAGGCGCCGCCCTGTTCGAA

SEQ ID No. 917:   5'- CCCGGCAACAGAGTTTTACG

SEQ ID No. 918:   5'- CCCCGGCAACAGAGTTTTAC

SEQ ID No. 919:   5'- CCATCTGTAAGTGGCAGCCG

SEQ ID No. 920:   5'- TCTGTAAGTGGCAGCCGAAG

20   SEQ ID No. 921:   5'- CTGTAAGTGGCAGCCGAAGC

SEQ ID No. 922:   5'- CCCATCTGTAAGTGGCAGCC

SEQ ID No. 923:   5'- TGTAAGTGGCAGCCGAAGCC

SEQ ID No. 924:   5'- CATCTGTAAGTGGCAGCCGA

SEQ ID No. 925:   5'- ATCTGTAAGTGGCAGCCGAA

25   SEQ ID No. 926:   5'- CAGCCGAAGCCGCCTTTCCT

SEQ ID No. 927:   5'- GGCAACAGAGTTTTACGACC

SEQ ID No. 928:   5'- CCGGCAACAGAGTTTTACGA

SEQ ID No. 929:   5'- TTCCCCGGCAACAGAGTTTT

SEQ ID No. 930:   5'- CTTCCCCGGCAACAGAGTTT

30   SEQ ID No. 931:   5'- TCCCCGGCAACAGAGTTTTA

SEQ ID No. 932:   5'- CCGTCCGCCGCTAACCTTTT

SEQ ID No. 933:   5'- CTTCCTCCGACTTACGCCGG

SEQ ID No. 934:   5'- CCTCCGACTTACGCCGGCAG

SEQ ID No. 935:   5'- TTCCTCCGACTTACGCCGGC

5   SEQ ID No. 936:   5'- TCCTCCGACTTACGCCGGCA

SEQ ID No. 937:   5'- TCCGACTTACGCCGGCAGTC

SEQ ID No. 938:   5'- CCGACTTACGCCGGCAGTCA

SEQ ID No. 939:   5'- GCCTTCCTCCGACTTACGCC

SEQ ID No. 940:   5'- CCTTCCTCCGACTTACGCCG

10   SEQ ID No. 941:   5'- GCTCTCCCCGAGCAACAGAG

SEQ ID No. 942:   5'- CTCTCCCCGAGCAACAGAGC

SEQ ID No. 943:   5'- CGCTCTCCCCGAGCAACAGA

SEQ ID No. 944:   5'- CTCCGACTTACGCCGGCAGT

SEQ ID No. 945:   5'- TCTCCCCGAGCAACAGAGCT

15   SEQ ID No. 946:   5'- CGACTTACGCCGGCAGTCAC

SEQ ID No. 947:   5'- TCGGCACTGGGGTGTGTCCC

SEQ ID No. 948:   5'- GGCACTGGGGTGTGTCCCCC

SEQ ID No. 949:   5'- CTGGGGTGTGTCCCCCCAAC

SEQ ID No. 950:   5'- CACTGGGGTGTGTCCCCCCA

20   SEQ ID No. 951:   5'- ACTGGGGTGTGTCCCCCCAA

SEQ ID No. 952:   5'- GCACTGGGGTGTGTCCCCCC

SEQ ID No. 953:   5'- TGGGGTGTGTCCCCCCAACA

SEQ ID No. 954:   5'- CACTCCAGACTTGCTCGACC

SEQ ID No. 955:   5'- TCACTCCAGACTTGCTCGAC

25   SEQ ID No. 956:   5'- CGGCACTGGGGTGTGTCCCC

SEQ ID No. 957:   5'- CGCCTTCCTCCGACTTACGC

SEQ ID No. 958:   5'- CTCCCCGAGCAACAGAGCTT

SEQ ID No. 959:   5'- ACTCCAGACTTGCTCGACCG

SEQ ID No. 960:   5'- CCCATGCCGCTCTCCCCGAG

30   SEQ ID No. 961:   5'- CCATGCCGCTCTCCCCGAGC

SEQ ID No. 962:   5'- CCCCATGCCGCTCTCCCCGA

SEQ ID No. 963:   5'- TCACTCGGTACCGTCTCGCA

SEQ ID No. 964:   5'- CATGCCGCTCTCCCCGAGCA

SEQ ID No. 965:   5'- ATGCCGCTCTCCCCGAGCAA

5   SEQ ID No. 966:   5'- TTCGGCACTGGGGTGTGTCC

SEQ ID No. 967:   5'- TGCCGCTCTCCCCGAGCAAC

SEQ ID No. 968:   5'- TTCACTCCAGACTTGCTCGA

SEQ ID No. 969:   5'- CCCGCAAGAAGATGCCTCCT

SEQ ID No. 970:   5'- AGAAGATGCCTCCTCGCGGG

10 SEQ ID No. 971:   5'- AAGAAGATGCCTCCTCGCGG

SEQ ID No. 972:   5'- CGCAAGAAGATGCCTCCTCG

SEQ ID No. 973:   5'- AAGATGCCTCCTCGCGGGCG

SEQ ID No. 974:   5'- CCGCAAGAAGATGCCTCCTC

SEQ ID No. 975:   5'- GAAGATGCCTCCTCGCGGGC

15 SEQ ID No. 976:   5'- CCCCGCAAGAAGATGCCTCC

SEQ ID No. 977:   5'- CAAGAAGATGCCTCCTCGCG

SEQ ID No. 978:   5'- TCCTTCGGCACTGGGGTGTG

SEQ ID No. 979:   5'- CCGCTCTCCCCGAGCAACAG

SEQ ID No. 980:   5'- TGCCTCCTCGCGGGCGTATC

20 SEQ ID No. 981:   5'- GACTTACGCCGGCAGTCACC

SEQ ID No. 982:   5'- GGCTCCTCTCTCAGCGGCCC

SEQ ID No. 983:   5'- CCTTCGGCACTGGGGTGTGT

SEQ ID No. 984:   5'- GGGGTGTGTCCCCCCAACAC

SEQ ID No. 985:   5'- GCCGCTCTCCCCGAGCAACA

25 SEQ ID No. 986:   5'- AGATGCCTCCTCGCGGGCGT

SEQ ID No. 987:   5'- CACTCGGTACCGTCTCGCAT

SEQ ID No. 988:   5'- CTCACTCGGTACCGTCTCGC

SEQ ID No. 989:   5'- GCAAGAAGATGCCTCCTCGC

SEQ ID No. 990:   5'- CTCCAGACTTGCTCGACCGC

30 SEQ ID No. 991:   5'- TTACGCCGGCAGTCACCTGT

SEQ ID No. 992:   5′- CTTCGGCACTGGGGTGTGTC

SEQ ID No. 993:   5′- CTCGCGGGCGTATCCGGCAT

SEQ ID No. 994:   5′- GCCTCCTCGCGGGCGTATCC

SEQ ID No. 995:   5′- ACTCGGTACCGTCTCGCATG

5   SEQ ID No. 996:   5′- GATGCCTCCTCGCGGGCGTA

SEQ ID No. 997:   5′- GGGTGTGTCCCCCCAACACC

SEQ ID No. 998:   5′- ACTTACGCCGGCAGTCACCT

SEQ ID No. 999:   5′- CTTACGCCGGCAGTCACCTG

SEQ ID No. 1000:   5′- ATGCCTCCTCGCGGGCGTAT

10   SEQ ID No. 1001:   5′- GCGCCGCGGGCTCCTCTCTC

SEQ ID No. 1002:   5′- GGTGTGTCCCCCCAACACCT

SEQ ID No. 1003:   5′- GTGTGTCCCCCCAACACCTA

SEQ ID No. 1004:   5′- CCTCGCGGGCGTATCCGGCA

SEQ ID No. 1005:   5′- CCTCACTCGGTACCGTCTCG

15   SEQ ID No. 1006:   5′- TCCTCACTCGGTACCGTCTC

SEQ ID No. 1007:   5′- TCGCGGGCGTATCCGGCATT

SEQ ID No. 1008:   5′- TTTCACTCCAGACTTGCTCG

SEQ ID No. 1009:   5′- TACGCCGGCAGTCACCTGTG

SEQ ID No. 1010:   5′- TCCAGACTTGCTCGACCGCC

20   SEQ ID No. 1011:   5′- CTCGGTACCGTCTCGCATGG

SEQ ID No. 1012:   5′- CGCGGGCGTATCCGGCATTA

SEQ ID No. 1013:   5′- GCGTATCCGGCATTAGCGCC

SEQ ID No. 1014:   5′- GGGCTCCTCTCTCAGCGGCC

SEQ ID No. 1015:   5′- TCCCCGAGCAACAGAGCTTT

25   SEQ ID No. 1016:   5′- CCCCGAGCAACAGAGCTTTA

SEQ ID No. 1017:   5′- CCGAGCAACAGAGCTTTACA

SEQ ID No. 1018:   5′- CCATCCCATGGTTGAGCCAT

SEQ ID No. 1019:   5′- GTGTCCCCCCAACACCTAGC

SEQ ID No. 1020:   5′- GCGGGCGTATCCGGCATTAG

30   SEQ ID No. 1021:   5′- CGAGCGGCTTTTTGGGTTTC

SEQ ID No. 1022:   5'- CTTTCACTCCAGACTTGCTC

SEQ ID No. 1023:   5'- TTCCTTCGGCACTGGGGTGT

SEQ ID No. 1024:   5'- CCGCCTTCCTCCGACTTACG

SEQ ID No. 1025:   5'- CCCGCCTTCCTCCGACTTAC

5   SEQ ID No. 1026:   5'- CCTCCTCGCGGGCGTATCCG

SEQ ID No. 1027:   5'- TCCTCGCGGGCGTATCCGGC

SEQ ID No. 1028:   5'- CATTAGCGCCCGTTTCCGGG

SEQ ID No. 1029:   5'- GCATTAGCGCCCGTTTCCGG

SEQ ID No. 1030:   5'- GGCATTAGCGCCCGTTTCCG

10   SEQ ID No. 1031:   5'- GTCTCGCATGGGGCTTTCCA

SEQ ID No. 1032:   5'- GCCATGGACTTTCACTCCAG

SEQ ID No. 1033:   5'- CATGGACTTTCACTCCAGAC

SEQ ID No. 1037:   5'- ACCGTCTCACAAGGAGCTTT

SEQ ID No. 1038:   5'- TACCGTCTCACAAGGAGCTT

15   SEQ ID No. 1039:   5'- GTACCGTCTCACAAGGAGCT

SEQ ID No. 1040:   5'- GCCTACCCGTGTATTATCCG

SEQ ID No. 1041:   5'- CCGTCTCACAAGGAGCTTTC

SEQ ID No. 1042:   5'- CTACCCGTGTATTATCCGGC

SEQ ID No. 1043:   5'- GGTACCGTCTCACAAGGAGC

20   SEQ ID No. 1044:   5'- CGTCTCACAAGGAGCTTTCC

SEQ ID No. 1045:   5'- TCTCACAAGGAGCTTTCCAC

SEQ ID No. 1046:   5'- TACCCGTGTATTATCCGGCA

SEQ ID No. 1047:   5'- GTCTCACAAGGAGCTTTCCA

SEQ ID No. 1048:   5'- ACCCGTGTATTATCCGGCAT

25   SEQ ID No. 1049:   5'- CTCGGTACCGTCTCACAAGG

SEQ ID No. 1050:   5'- CGGTACCGTCTCACAAGGAG

SEQ ID No. 1051:   5'- ACTCGGTACCGTCTCACAAG

SEQ ID No. 1052:   5'- CGGCTGGCTCCATAACGGTT

SEQ ID No. 1053:   5'- ACAAGTAGATGCCTACCCGT

30   SEQ ID No. 1054:   5'- TGGCTCCATAACGGTTACCT

SEQ ID No. 1055:   5'- CAAGTAGATGCCTACCCGTG

SEQ ID No. 1056:   5'- CACAAGTAGATGCCTACCCG

SEQ ID No. 1057:   5'- GGCTCCATAACGGTTACCTC

SEQ ID No. 1058:   5'- ACACAAGTAGATGCCTACCC

5   SEQ ID No. 1059:   5'- CTGGCTCCATAACGGTTACC

SEQ ID No. 1060:   5'- GCTGGCTCCATAACGGTTAC

SEQ ID No. 1061:   5'- GGCTGGCTCCATAACGGTTA

SEQ ID No. 1062:   5'- GCTCCATAACGGTTACCTCA

SEQ ID No. 1063:   5'- AAGTAGATGCCTACCCGTGT

10   SEQ ID No. 1064:   5'- CTCCATAACGGTTACCTCAC

SEQ ID No. 1065:   5'- TGCCTACCCGTGTATTATCC

SEQ ID No. 1066:   5'- TCGGTACCGTCTCACAAGGA

SEQ ID No. 1067:   5'- CTCACAAGGAGCTTTCCACT

SEQ ID No. 1068:   5'- GTAGATGCCTACCCGTGTAT

15   SEQ ID No. 1069:   5'- CCTACCCGTGTATTATCCGG

SEQ ID No. 1070:   5'- CACTCGGTACCGTCTCACAA

SEQ ID No. 1071:   5'- CTCAGCGATGCAGTTGCATC

SEQ ID No. 1072:   5'- AGTAGATGCCTACCCGTGTA

SEQ ID No. 1073:   5'- GCGGCTGGCTCCATAACGGT

20   SEQ ID No. 1074:   5'- CCAAAGCAATCCCAAGGTTG

SEQ ID No. 1075:   5'- TCCATAACGGTTACCTCACC

SEQ ID No. 1076:   5'- CCCGTGTATTATCCGGCATT

SEQ ID No. 1077:   5'- TCTCAGCGATGCAGTTGCAT

SEQ ID No. 1078:   5'- CCATAACGGTTACCTCACCG

25   SEQ ID No. 1079:   5'- TCAGCGATGCAGTTGCATCT

SEQ ID No. 1080:   5'- GGCGGCTGGCTCCATAACGG

SEQ ID No. 1081:   5'- AAGCAATCCCAAGGTTGAGC

SEQ ID No. 1082:   5'- TCACTCGGTACCGTCTCACA

SEQ ID No. 1083:   5'- CCGAGTGTTATTCCAGTCTG

30   SEQ ID No. 1084:   5'- CACAAGGAGCTTTCCACTCT

SEQ ID No. 1085:   5′- ACAAGGAGCTTTCCACTCTC

SEQ ID No. 1086:   5′- TCACAAGGAGCTTTCCACTC

SEQ ID No. 1087:   5′- CAGCGATGCAGTTGCATCTT

SEQ ID No. 1088:   5′- CAAGGAGCTTTCCACTCTCC

5   SEQ ID No. 1089:   5′- CCAGTCTGAAAGGCAGATTG

SEQ ID No. 1090:   5′- CAGTCTGAAAGGCAGATTGC

SEQ ID No. 1091:   5′- CGGCGGCTGGCTCCATAACG

SEQ ID No. 1092:   5′- CCTCTCTCAGCGATGCAGTT

SEQ ID No. 1093:   5′- CTCTCTCAGCGATGCAGTTG

10   SEQ ID No. 1094:   5′- TCTCTCAGCGATGCAGTTGC

SEQ ID No. 1095:   5′- CTCTCAGCGATGCAGTTGCA

SEQ ID No. 1096:   5′- CAATCCCAAGGTTGAGCCTT

SEQ ID No. 1097:   5′- AATCCCAAGGTTGAGCCTTG

SEQ ID No. 1098:   5′- AGCAATCCCAAGGTTGAGCC

15   SEQ ID No. 1099:   5′- CTCACTCGGTACCGTCTCAC

SEQ ID No. 1100:   5′- GCAATCCCAAGGTTGAGCCT

SEQ ID No. 1101:   5′- GCCTTGGACTTTCACTTCAG

SEQ ID No. 1102:   5′- CATAACGGTTACCTCACCGA

SEQ ID No. 1103:   5′- CTCCTCTCAGCGATGCAG

20   SEQ ID No. 1104:   5′- TCGGCGGCTGGCTCCATAAC

SEQ ID No. 1105:   5′- AGTCTGAAAGGCAGATTGCC

SEQ ID No. 1106:   5′- TCCTCTCTCAGCGATGCAGT

SEQ ID No. 1107:   5′- CCCAAGGTTGAGCCTTGGAC

SEQ ID No. 1108:   5′- ATAACGGTTACCTCACCGAC

25   SEQ ID No. 1109:   5′- TCCCAAGGTTGAGCCTTGGA

SEQ ID No. 1110:   5′- ATTATCCGGCATTAGCACCC

SEQ ID No. 1111:   5′- CTACGTGCTGGTAACACAGA

SEQ ID No. 1112:   5′- GCCGCTAGCCCCGAAGGGCT

SEQ ID No. 1113:   5′- CTAGCCCCGAAGGGCTCGCT

30   SEQ ID No. 1114:   5′- CGCTAGCCCCGAAGGGCTCG

SEQ ID No. 1115:   5'- AGCCCCGAAGGGCTCGCTCG

SEQ ID No. 1116:   5'- CCGCTAGCCCCGAAGGGCTC

SEQ ID No. 1117:   5'- TAGCCCCGAAGGGCTCGCTC

SEQ ID No. 1118:   5'- GCTAGCCCCGAAGGGCTCGC

5   SEQ ID No. 1119:   5'- GCCCCGAAGGGCTCGCTCGA

SEQ ID No. 1120:   5'- ATCCCAAGGTTGAGCCTTGG

SEQ ID No. 1121:   5'- GAGCCTTGGACTTTCACTTC

SEQ ID No. 1122:   5'- CAAGGTTGAGCCTTGGACTT

SEQ ID No. 1123:   5'- GAGCTTTCCACTCTCCTTGT

10   SEQ ID No. 1124:   5'- CCAAGGTTGAGCCTTGGACT

SEQ ID No. 1125:   5'- CGGGCTCCTCTCTCAGCGAT

SEQ ID No. 1126:   5'- GGAGCTTTCCACTCTCCTTG

SEQ ID No. 1127:   5'- GGGCTCCTCTCTCAGCGATG

SEQ ID No. 1128:   5'- TCTCCTTGTCGCTCTCCCCG

15   SEQ ID No. 1129:   5'- TCCTTGTCGCTCTCCCCGAG

SEQ ID No. 1130:   5'- AGCTTTCCACTCTCCTTGTC

SEQ ID No. 1131:   5'- CCACTCTCCTTGTCGCTCTC

SEQ ID No. 1132:   5'- GGCTCCTCTCTCAGCGATGC

SEQ ID No. 1133:   5'- CCTTGTCGCTCTCCCCGAGC

20   SEQ ID No. 1134:   5'- CACTCTCCTTGTCGCTCTCC

SEQ ID No. 1135:   5'- ACTCTCCTTGTCGCTCTCCC

SEQ ID No. 1136:   5'- CTCTCCTTGTCGCTCTCCCC

SEQ ID No. 1137:   5'- GCGGGCTCCTCTCTCAGCGA

SEQ ID No. 1138:   5'- GGCTCCATCATGGTTACCTC

25   SEQ ID No. 1142:   5'- CTTCCTCCGGCTTGCGCCGG

SEQ ID No. 1143:   5'- CGCTCTTCCCGA(G/T)TGACTGA

SEQ ID No. 1144:   5'- CCTCGGGCTCCTCCATC(A/T)GC

2. The method according to claim 1, wherein drink-spoiling microorganisms belonging to the genus *Zygosacchaeromyces* are detected with oligonucleotide probe SEQ ID No. 1.

5   3. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces bailii* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 5 to SEQ ID No. 21.

10   4. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces fermentati* is detected with oligonucleotide probe SEQ ID No. 22.

5. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces microellipsoides* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 23 to SEQ ID No. 24.

6. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces mellis* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 25 to SEQ ID No. 75.

7. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces rouxii* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 76 to SEQ ID No. 126.

8. The method according to claim 1, wherein the drink-spoiling microorganisms *Zygosacchaeromyces mellis* and *Zygosacchaeromyces rouxii* are detected simultaneously with oligonucleotide probe SEQ ID No. 127.

5
9. The method according to claim 1, wherein the drink-spoiling microorganism *Zygosacchaeromyces bisporus* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 128 to SEQ ID No. 142.

10
10. The method according to claim 1, wherein the drink-spoiling microorganism *Hanseniaspora uvarum* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 143 to SEQ ID No. 144.

11. The method according to claim 1, wherein the drink-spoiling
15 microorganism *Candida intermedia* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 145 to SEQ ID No. 146.

12. The method according to claim 1, wherein the drink-spoiling microorganism *Candida parapsilosis* is detected with oligonucleotide probe SEQ ID
20 No. 148.

13. The method according to claim 1, wherein the drink-spoiling microorganism *Candida crusei* (*Issatchenkia orientalis*) is detected with oligonucleotide probe SEQ ID No. 149.

25
14. The method according to claim 1, wherein the drink-spoiling microorganisms *Brettanomyces* (*Dekkera*) *anomala* and *Dekkera bruxellensis* are detected simultaneously with oligonucleotide probe SEQ ID No. 150.

15. The method according to claim 1, wherein the drink-spoiling microorganism *Brettanomyces* (*Dekkera*) *bruxellensis* is detected with oligonucleotide probe SEQ ID No. 151.

5   16. The method according to claim 1, wherein the drink-spoiling microorganism *Brettanomyces* (*Dekkera*) *naardenensis* is detected with oligonucleotide probe SEQ ID No. 152.

17. The method according to claim 1, wherein the drink-spoiling

10 microorganism *Pichia membranaefaciens* is detected with oligonucleotide probe SEQ ID No. 153.

18. The method according to claim 1, wherein the drink-spoiling microorganisms *Pichia minuta* and *Pichia anomala* are detected simultaneously with

15 oligonucleotide probe SEQ ID No. 154.

19. The method according to claim 1, wherein the drink-spoiling microorganism *Saccharomyces exiguus* is detected with oligonucleotide probe SEQ ID No. 157.

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20. The method according to claim 1, wherein the drink-spoiling microorganism *Saccharomycodes ludwigii* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 158 to SEQ ID No. 159.

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21. The method according to claim 1, wherein the drink-spoiling microorganism *Saccharomyces cerevisiae* is detected with oligonucleotide probe SEQ ID No. 160.

22. The method according to claim 1, wherein the drink-spoiling microorganism *Mucor racemosus* is detected with oligonucleotide probe SEQ ID No. 163.

23. The method according to claim 1, wherein the drink-spoiling microorganism *Byssochlamys nivea* is detected with oligonucleotide probe SEQ ID No. 164.

24. The method according to claim 1, wherein the drink-spoiling microorganism *Neosartorya fischeri* is detected with oligonucleotide probe SEQ ID No. 165.

25. The method according to claim 1, wherein the drink-spoiling microorganisms *Aspergillus fumigatus* and *A. fischeri* are detected simultaneously with oligonucleotide probe SEQ ID No. 166.

26. The method according to claim 1, wherein the drink-spoiling microorganism *Talaromyces flavus* is detected with oligonucleotide probe SEQ ID No. 167.

27. The method according to claim 1, wherein the drink-spoiling microorganisms *Talaromyces bacillisporus* and *T. flavus* are detected simultaneously with oligonucleotide probe SEQ ID No. 168.

28. The method according to claim 1, wherein the drink-spoiling microorganism *Lactobacillus collinoides* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 169 to SEQ ID No. 269.

29. The method according to claim 1, wherein drink-spoiling microorganisms of the genus *Leuconostoc* are detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 270 to SEQ ID No. 271.

5   30. The method according to claim 1, wherein the drink-spoiling microorganisms *Leuconostoc mesenteroides* and *L. pseudomesenteroides* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 272 to SEQ ID No. 301.

10   31. The method according to claim 1, wherein the drink-spoiling microorganism *Leuconostoc pseudomesenteroides* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 302 to SEQ ID No. 341.

15   32. The method according to claim 1, wherein the drink-spoiling microorganism *Oenococcus oenis* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 342 to SEQ ID No. 444.

33. The method according to claim 1, wherein drink-spoiling microorganisms
20   of the genus *Weissella* are detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 445 to SEQ ID No. 495.

34. The method according to claim 1, wherein drink-spoiling microorganisms of the genus *Lactococcus* are detected with at least one oligonucleotide probe
25   selected from the group consisting of SEQ ID No. 496 to SEQ ID No. 546.

35. The method according to claim 1, wherein drink-spoiling microorganisms of the genera *Acetobacter* and *Gluconobacter* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No.
30   547 to SEQ ID No. 608.

36. The method according to claim 1, wherein drink-spoiling microorganisms of the genera *Acetobacter, Gluconobacter* and *Gluconoacetobacter* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 609 to SEQ ID No. 842.

37. The method according to claim 1, wherein the drink-spoiling microorganism *Bacillus coagulans* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 843 to SEQ ID No. 932.

38. The method according to claim 1, wherein drink-spoiling microorganisms of the genus *Alicyclobacilus* are detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 933 to SEQ ID No. 1033.

39. The method according to claim 1, wherein the drink-spoiling microorganism *Alicyclobacillus acidoterrestris* is detected with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 1037 to SEQ ID No. 1138.

40. The method according to claim 1, wherein the drink-spoiling microorganisms *Alicyclobacillus cycloheptanicus and A. herbarius* are detected simultaneously with at least one oligonucleotide probe selected from the group consisting of SEQ ID No. 1142 to SEQ ID No. 1144.

41. The method according to claim 2, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

42. The method according to claim 41, characterised in that the oligonucleotide probe SEQ. ID No. 1 is used in combination with one or more

competitor probes selected from the group consisting of SEQ ID No. 2 to SEQ ID No. 4.

43. The method according to claim 11, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

44. The method according to claim 43, characterised in that the oligonucleotide probe SEQ ID No. 146 is used in combination with competitor probe SEQ ID No. 147.

45. The method according to claim 18, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

46. The method according to claim 45, characterised in that the oligonucleotide probe SEQ ID No. 154 is used in combination with one or more competitor probes selected from the group consisting of SEQ ID No. 155 to SEQ ID No. 156.

47. The method according to claim 21, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

48. The method according to claim 47, characterised in that the oligonucleotide probe SEQ ID No. 160 is used in combination with one or more competitor probes selected from the group consisting of SEQ ID No. 161 to SEQ ID No. 162.

49. The method according to claim 38, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

50. The method according to claim 49, characterised in that the oligonucleotide probe SEQ ID No. 933 is used in combination with one or more competitor probes selected from the group consisting of SEQ ID No. 1034 to SEQ ID No. 1036.

51. The method according to claim 39, characterised in that the at least one oligonucleotide probe is used in combination with one or more competitor probes.

52. The method according to claim 51, characterised in that the oligonucleotide probe SEQ ID No. 1044 is used in combination with the competitor probe SEQ ID No. 1139.

53. The method according to claim 51, characterised in that the oligonucleotide probe SEQ ID No. 1057 is used in combination with one or more competitor probes selected from the group consisting of SEQ ID No. 1140 to SEQ ID No. 1141.

54. The method according to any of claims 1 to 53, characterized in by comprising the following steps:
   a) cultivating the drink-spoiling microorganisms contained in the sample,
   b) fixing the drink-spoiling microorganisms contained in the sample,
   c) incubating-the fixed microorganisms with at least one oligonucleotide probe optionally in combination with a competitor probe,
   d) removing non-hybridised oligonucleotide probes,
   e) detecting and visualizing and optionally quantifiying the drink-spoiling microorganisms with the hybridized oligonucleotide probes.

55. The method according to any of claims 1 to 54, chacterized in that the sample is a sample from non-alcoholic beverages.

56. A kit for performing a method according to any of claims 1 to 55, containing at least one oligonucleotide according to claim 1.